

ISBN :



CONFERENCE PROGRAMS AND ABSTRACT

**ADVANCING SUSTAINABLE SCIENCE AND TECHNOLOGY
THROUGH EFFECTIVE COLLABORATION**

OCTOBER 20-21, 2021

**Palembang, Province of South Sumatera
Indonesia**

Organized By :



FOREWORD FROM GENERAL CHAIR 5th FIRST 2021 INTERNATIONAL CONFERENCE



Assalamu'alaikum wr wb,

Alhamdulillahirrobbil 'alamin, Thank to the God, almighty, due to His bless and love, we are granted good health and opportunity so that we can meet here in the event of the 5th FIRST and the 3rd SNAPTEKMAS 2021.

The honorable keynote speakers of the 5th FIRST and the 3rd SNAPTEKMAS 2021

Dra. Nana Yuliana, MA., Ph.D., as The Indonesian LBBP Ambassador for the Republic of Cuba, concurrently with the Commonwealth of the Bahamas, Jamaica, the Dominican Republic and Haiti

Prof. Ramaraj Boopathy. from U Alcee Fortier Distinguished Service Professor of Biological Sciences At the Nicholls State University, USA

Dr. Ing. Ahmad Taqwa, the Director of State Polytechnic of Sriwijaya.

The honourable keynote speakers, distinguished guests, all participants, ladies and gentlemen,

For the beginning of my speech, let me welcome all of you with my great warm hug. It is a great honor for me that you choose the 5th FIRST and the 3rd SNAPTEKMAS 2021 as your conference. I am so proud that the authors still become enthusiastic to develop the knowledge although in this pandemic situation. Let us still work hard to support the development of the world through the research, science, and technology in many parts of the knowledge, as what has been purposed by the FIRST conference itself.

In this occasion, I would like proudly to inform you that the 5th FIRST and the 3rd SNAPTEKMAS 2021 as the forum to share knowledge, to search, to find, and to enlarge the link with other industries and universities has attracted so many authors from abroad, such as from: Politeknik Tun Syed Nasir Syed Ismail; MARA University; Politeknik Mukah Sarawak; University Sultan Zainal Abidin, Terengganu, Malaysia; Politeknik Melaka (PMK) Malaysia; Iloilo Science and Technology University (ISAT-U) Philipina; Politeknik Kota Kinabalu; Universiti Teknologi Malaysia; The National University of Malaysia; National Chin-Yi University of Technology (NCUT); Accounting Research Institute UiTM-Malaysia; Management and Science University Malaysia; AIBaha University, KSA, Saudi Arabia; Politeknik Melaka (PMK), Malaysia; Kuantan Community College, Pahang, Malaysia; Universiti Brunei Darussalam; and Ferdowsi University of Mashhad, Iran.

Welcome to all of the researchers that become the collaborators in our research and community service. It is our great honour to have you as our collaborators and participants in the 5th FIRST and the 3rd SNAPTEKMAS 2021.

The honourable keynote speakers, distinguished guests, all participants, ladies and gentlemen,

In this chance, I would like to say thank you very much to the Director of State Polytechnic of Sriwijaya for his full support in the development of the Research and Service Community programs. Due to his hard work and his belief to all of the committee so that this event can be held.

In this occasion, I also would like to convey my big thank to all of the keynote speakers, invited guests, all the participants, all reviewers, and all committee of the 5th FIRST and the 3rd SNAPTEKMAS 2021. Without you all, this event will be nothing. May Allah SWT gives His reward for your sincerity. As the time goes by, it is hoped that our cooperation and coordination in the FIRST and SNAPTEKMAS can be maintained and improved. I hope that you can enjoy this conference and can get a big benefit from this event. I also wish that we can meet again in the forthcoming FISRT ad SNAPTEKMAS

Wassalamu'alaikumwaraahmatullahi wabarakatuh

FOREWORD FROM DIRECTOR OF STATE POLYTECHNIC OF SRIWIJAYA



The honorable, FIRST 2021 and SNAPTEKMAS 2021 keynote speakers,

Dra. Nana Yuliana, MA., Ph.D., as The Indonesian LBBP Ambassador for the Republic of Cuba, accredited to the Bahamas, Republic of Dominican, Republic of Haiti and Jamaica

Prof. Ramaraj Boopathy., from U Alcee Fortier Distinguished Service Professor of biological sciences at the Nicholls State University, USA

Dr. Ing. Ahmad Taqwa, MT., as Director of Politeknik Negeri Sriwijaya

Assalamualaikum wr wb,

Let us extend our gratitude to Allah SWT, the most gracious, the most merciful. Due to His bless, we can gather here, at the Opening Ceremony of the FIRST 2021 and SNAPTEKMAS 2021

First of all, Please let me deliver my warm welcome to all keynote speakers and all participant of FIRST 2021 and SNAPTEKMAS 2021. It is my great pleasure to meet and see you in this event.

Although, there are so many obstacles that should be faced in the pandemic situation, however, as young generation, we should be optimistic, stay strong and be active in searching and finding the solution. The FIRST 2021 and SNAPTEKMAS 2021 as the DIES of State Polytechnic of Sriwijaya annual event will become one of the media to support those activities. The researchers could share knowledge, find partners, and enlarge the collaboration through this event.

Based on the change in the model of the teaching learning activity that focuses on the MERDEKA BELAJAR, State Polytechnic of Sriwijaya has a big desire in getting acceleration in the internationalization of the institution. One of them by improving the overseas and industrial collaboration, especially in joint research and joint publication. In the beginning of 2021, the research and community service unit in Politeknik Negeri Sriwijaya has launched new schemes of research and community service, namely the Overseas Collaboration Research and Overseas Collaboration Community Service. Thanks to God, those schemes have attracted researchers not only from Asia but also several other countries outside Asia, such as: research and community service collaboration with Al Baha University from Saudi Arabia, with Ferdowsi University of Mashhad from Iran, and with Princess Sumaya University of Technology from Jordan, as well as several other foreign universities.

In this occasion, I also would like to welcome all the researchers that become the collaborators in our new scheme of research and community service. It is our great honour to have you as our collaborators.

The honourable participants,

At this time, State Polytechnic of Sriwijaya has held 5 times of FIRST. FIRST publications from previous conferences have been successfully indexed not only in SCOPUS, but also in WOS. This 5th FIRST seminar will be conjugated with the 3rd National Seminar on Community Service SNAPTEKMAS. (National seminar of applied technology for public). All of these are the efforts to improve the quality of Polsri lecturers which significantly have a positive effect on the learning process of Polsri students.

Before ending my speech, I would like to congratulate the participants of The FIRST 2021 and SNAPTEKMAS 2021. May the noble efforts, support, and cooperation of researchers in this conference will continue. Special thanks to the organizer and co-organizer committee of The FIRST 2021 and SNAPTEKMAS 2021 for the hard work and the commitment in realizing this conference. Do maintain the spirit of working in a team and continue to unite in order to display a culture of excellence in the eyes of the country and the world.

With Bismillahirrahmanirrahim, I officiate The FIRST 2021 and SNAPTEKMAS 2021.
Wassalamu'alaikum warrahmatullahi Wabarakatu

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KEYNOTE SPEAKER



Dra. Nana Yuliana, MA., Ph.D.

The Indonesian LBBP Ambassador for the Republic of Cuba, concurrently with the Commonwealth of the Bahamas, Jamaica, the Dominican Republic and Haiti

Her Excellency Ambassador Nana Yuliana, Ph.D arrived in Havana, Cuba on December, 23rd, 2020 to serve her duties as the Ambassador Extraordinary and Plenipotentiary of the Republic of Indonesia to Republic of Cuba, Commonwealth of Bahamas, Dominican Republic, Republic of Haiti and Jamaica. She was appointed by the President of the Republic of Indonesia on October 19th, 2020. Prior to her position as Ambassador Extraordinary and Plenipotentiary, she was Consul General of the Republic of Indonesia in Houston, Texas, United States of America from 2017 –2020, after she was the Director of Mid-Career Diplomatic School at the Ministry of Foreign Affairs of Indonesia from 2014 – 2017. Her first diplomatic assignment was as First Secretary of Political Affairs at the Embassy of Indonesia in Manila from 2001-2005. From 2008 to 2012, she was the Counsellor of Economic Affairs of the Embassy of Indonesia in Bangkok and Permanent Representative of Indonesia to the United Nations Economic and Social Commission for Asia and Pacific (UNESCAP). She attended several meetings related to Millennium Development Goals (MDGs) or Sustainable Development Goals (SDGs) issues. Her bachelor's degree was English Education from Institute of Teacher's Training in Jakarta, then she pursued her Master Degree in Applied Linguistics for Macquarie University in Sydney, Australia and also International Relations from University of Indonesia in Jakarta, Indonesia. She completed her Doctoral Degree in Development Studies from the University of Santo Tomas, Manila, Philippines in 2006. While serving as a diplomat since 1995, her passion in teaching and learning encourages her as well to share her knowledge and teaches at the University in Jakarta, Indonesia. During her tenure as Consul General, she was very active in promoting Trade, Tourism, Inbound and Outbound Investments and very keen to engage with Universities for cooperation in human capital development.

KEYNOTE SPEAKER



Prof. Ramaraj Boopathy

Alcee Fortier Distinguished Service Professor of biological sciences
at the Nicholls State University, USA

Fulbright Scholar Fulbright Senior Specialist World Class Professor-Government of Indonesia. Honorary Visiting Professor, ITB, Indonesia Alcee Fortier Distinguished Service Professor John Brady Endowed Professor in Biological Sciences Nicholls State University Business Address: Alcee Fortier Distinguished Service Professor John Brady Endowed Professor in Biological Sciences Department of Biological Sciences Nicholls State University Thibodaux **EDUCATION:** B.Sc. Zoology, University of Madras, India; 1979 M.Sc. Environmental Biology, Tamil Nadu Agricultural University, India; 1981 Ph.D. Environmental Biology, University of Madras, India; 1986 **UNIVERSITY RESPONSIBILITIES:** Responsibilities include Teaching Environmental Biotechnology, a Senior and Graduate level course, Marine and Environmental Biology (Graduate Course), Microbiology and Environmental Biology courses. Research interests include Bioremediation of Hazardous Chemicals and Anaerobic Microbiology. Service includes advising students, participate in Departmental and University committees and serving the local and regional communities. Advisor to Masters Program in Marine and Environmental Biology. **PROFESSIONAL EXPERIENCE:** January 2013 – Present: John Brady Endowed Professor in Biological Sciences, Department of Biological Sciences, Nicholls State University, Thibodaux. Teaching, Research, and Service to the University and Community. August 2012 – Present: Alcee Fortier Distinguished Service Professor, Department of Biological Sciences, Nicholls State University, Thibodaux. Teaching, Research, and Service to the University and Community. August 2004 – Present: Distinguished Service Professor, Department of Biological Sciences, Nicholls State University, Thibodaux. Teaching, Research, and Service to the University and Community. **MAJOR AREAS OF RESEARCH INTERESTS:** Anaerobic digestion, Composting, Biodegradation of hazardous chemicals. Antibiotic resistant bacteria and Antibiotic resistance genes in the aquatic ecosystem. Isolation and identification of novel bacteria. Anaerobic degradation of explosive chemicals with particular reference to sulfate reducing bacteria. Design and development of biological reactor systems. Microbial immobilization of

heavy metals and radionuclides. Alcohol production from agricultural residues. Water quality in the wetlands. Alternative to sugarcane burning, Biological control of termites. Organic ways to control land loss and coastal restoration.

KEYNOTE SPEAKER



Dr. Ing. Ahmad Taqwa, MT.

Director of Politeknik Negeri Sriwijaya Indonesia


Director of State Polytechnic of Sriwijaya, other than that, he is still active at Head of The Research and Publication Commission Forum Director of State Polytechnical In Indonesia, Founder of The Online Journalist Board (IWO) Sumsel, Chairman of The Advisory Board of UKM Nusantara Palembang and Assessor of Higher Accreditation Board. **EDUCATION:** Diplom Ingenieur Electrical Engineering HTL, Ingenieurschule Beider Basel, Switzerland; 1994, Magister (2005) and Doctoral (2010) at Electrical Engineering, Bandung Institute of Technology, Indonesia. **RESEARCH:** Head of Research Assignment “Mini PLTS Periodic Cooling System to Overcome Overheating in Palembang City” (2019), Member of The Research Assignment “Effects of Sea Salt Dust Collection on Output Loss and Solar Panel Output Efficiency” (2020), and Head of Research Assignment “Design and Build of Wireless Sensor Network Prototype Detection Of Landslides Based on IOT and LORA” (2020). **DEDICATION:** “The Design and Evaluation of Virus Scan in The E-Mail System in SMA N 5 Palembang” (2018), Assignment Service “Utilization of WSN Technology in Parking Air Monitoring Foundation SMP Harapan Mulia Palembang” (2019), Development of Teaching Materials with Interactive Multimedia with Education Game for Harapan Mulia Junior High School Students” (2020). **AWARD:** Certificate In Participating In The 200 Hour Advanced Technical Teacher Training awarded by FONTYS and PEDC (1998), Satyalancana Karya Satya X Year 2011 And Satyalancana Karya Satya XX Year 2017 by The President of The Republic of Indonesia. **WORKSHOP:** Seminar and Focus Group Discussion Forum The Rector of Indonesia “Economic Stability In The Vuca Area”, Ujung Pandang (2020), Workshop on Using Integrated Resources Information System Applications For Lecturers of State Polytechnical Polytechnic, Palembang (2019) And Workshop of Learning Methodology of Polsri Lecturers and Outside Education Domicile (PDD) as a Source Person, Palembang (2019).

RUNDOWN
The 5th FIRST 2021 INTERNATIONAL CONFERENCE
(FORUM IN RESEARCH SCIENCE AND TECHNOLOGY)
SNAPTEKMAS (Seminar Nasional Aplikasi Teknologi pada Masyarakat) 2021
Palembang, South Sumatera, Indonesia
Thursday, October 21, 20201

Thursday, October 21, 2021				
No.	Session	Person in Charge	Time Allotment (WIB)	Liaison Officer
1.	Registration	Event Section Committee	07.00 – 08.00	Doeslohal Djumrianti, S.E.MIS., Ph.D
2.	The Opening Ceremony			
3.	Do'a	Event Section Committee	08.00 – 09.00	
4.	Indonesian National Anthem			
5.	Chair Report Speech			
6.	Speech and Opening Remarks by Director of State Polytechnic of Sriwijaya			
7.	Souvenirs Gift, Group Photos			
PLENARY SESSION				
No.	Keynote Speaker	Affiliation	Time Allotment (WIB)	Liaison Officer
1.	Dra. Nana Yuliana, MA., Ph.D.	The Indonesian LBBP Ambassador for the Republic of Cuba, concurrently with the Commonwealth of the Bahamas, Jamaica, the Dominican Republic and Haiti	09.00 – 10.00	Doeslohal Djumrianti, S.E.MIS., Ph.D
2.	Prof. Ramaraj Boopathy	Alcee Fortier Distinguished Service Professor of biological sciences at the Nicholls State University, USA	10.00 – 11.00	Dr. Nyayu Latifah Husni, M.T.
3..	Dr. Ing. Ahmad Taqwa, MT.	Director of Politeknik Negeri Sriwijaya, Indonesia	11.00 – 12.00	Dr. Martha Aznury, S.Pd., M.Si.

PARALLEL SESSION

No.	Theme	Room	Time	Moderator	Articles
1.	TRACK 1 (Engineering and Science)	1	13.00 – 16.00	Dr. Eng Tresna Dewi, M.Eng./ Ika Sulianti, ST, MT	15
2.	TRACK 1 (Engineering and Science)	2	13.00 – 16.00	Dr. Martha Aznury, M.Si./ Indah Purnamasari, M.Eng.	14
3.	TRACK 1 (Engineering and Science)	3	13.00 – 16.00	Fatahul Arifin, M.Eng, Ph.d./ Dr. Indrayani, S.T., M.T.	13
4.	TRACK 2 (Computer Science, Computer Engineering, Information System, Informatics Management)	4	13.00 – 16.00	Rika Sadariawati, M.Si./ M.Miftakhul Amin, S.Kom., M.Eng	13
5.	TRACK 2 (Computer Science, Computer Engineering, Information System, Informatics Management)	5	13.00 – 16.00	Dr. Nyayu Latifah H, MT./ Lindawati, S.T., M.TI	12
6.	TRACK 3 (Social Science)	6	13.00 – 16.00	Doeslohal Djumrianti, S.E.MIS., Ph.D/ Dr. Marieska Lupikawati	13
7.	TRACK 3 (Social Science)	7	13.00 – 16.00	Dr. Sari Lestari ZR/ Dr. Rita Martini	14
8.	SNAPTEKMAS 1	8	13.00 – 16.00	Yurni Oklarina, ST, MT/ Mouland Irwadi, SE. M.Si.	15
9.	SNAPTEKMAS 2	9	13.00 – 16.00	Leni Novianti, M.Kom./ Maivi Kusnandar, M.Kom	15
10	SNAPTEKMAS 3	10	13.00 – 16.00	M Husni Mubarak, M.Si./ Martinus Mujur, ST, MT	15
11	SNAPTEKMAS 4	10	13.00 – 16.00	Dr. Ade Silvia H, MT./ M. Sopian Soim, ST, MT	13



CLOSING SESSION		
Event	Time	Room
<ul style="list-style-type: none"> - Closing Ceremony - Announcement of: <ol style="list-style-type: none"> 1. Best Paper FIRST IC 2021 2. Best Paper SNAPTEKMAS 2021 3. Best Presenter FIRST IC 2021 4. Best Presenter SNAPTEKMAS 2021 - Quiz Online 	16.00– 17.00	Main Room

TRACK 3 (Social Science)

ROOM : 6
 TIME : Thursday, 21 October, 2021/ 13.00 - 16.30
 ARTICLES : 13
 MODERATOR : Doeslohal Djumrianti, S.E.MIS., Ph.D/ Dr. Marieska Lupikawati

NO	Time	ID	AUTHORS	TITLE	AFFILIATION
1	13.00-13.10	3847	Ayu Chotibah, Bainil Yulina, Desi Apriyanty, Evada Dewata, Pridson Mandiangan	THE INNOVATION OF SOUTH SUMATERA TRADITIONAL BATIK E-COMMERCE APPLICATIONS	State Polytechnic of Sriwijaya
2	13.10-13.20	3683	M. Thoyib, Riza Wahyudi, Firmansyah, Darul Amri	THE ANALYSIS OF COST QUALITY ON PRODUCTIVITY OF IRON RAILING PRODUCTS IN SMALL AND MEDIUM BUSINESS IN PALEMBANG	State Polytechnic of Sriwijaya
3	13.20-13.30	3757/3756	Nelly Masnila, Firmansyah, Jovan Febriantoko, Riana Mayasari, Jamaliah Said	Quality of Financial Reporting and Impact of GGG Implementation: Study on Local Government in Indonesia	State Polytechnic of Sriwijaya
4	13.30-13.40	3796	Evi Agustina Sari, Sri Gustiani, Yusri, Tiur Simanjuntak	An Error Analysis of English Sentence Construction in Writing Subject Made by the Students of the English Department at Sriwijaya State Polytechnics	State Polytechnic of Sriwijaya
5	13.40-13.50	3827	Edwin Frymaruwah, Farah Aida Ahmad Nadzri, Periansya, Evada Dewata	DISCLOSURE OF SUSTAINABLE PERFORMANCE IN HIGHER EDUCATION IN INDONESIA	State Polytechnic of Sriwijaya, UiTM
6	13.50-14.00	3976	Hendra Hadiwijaya Febrianty Rezanía Agramanisti Azdy	Improvement of LPKA Class 1 Palembang Electronic Dashboard with Field Performance Monitoring	Palcomtech Polytechnic, STMIK PalComTech
7	14.00-14.10	3853/4034	Neneng Miskiyah, Purwati, Yulia Pebrianti, Ketu Purnamasari, Nyimas Miftahul Jannah,	OPTIMIZATION OF INCOME PARAMETERS OF SONGKET CRAFTSMEN ON KOPERASI SONGKET PALEMBANG	State Polytechnic of Sriwijaya

Table of Contents

FOREWORD FROM GENERAL CHAIR 5 th FIRST 2021	2
INTERNATIONAL CONFERENCE	2
FOREWORD FROM DIRECTOR OF STATE POLYTECHNIC OF SRIWIJAYA	4
ORGANIZING COMMITTEE	5
KEYNOTE SPEAKER	7
Dra. Nana Yuliana, MA., Ph.D.	7
KEYNOTE SPEAKER	8
Prof. Ramaraj Boopathy	8
KEYNOTE SPEAKER	10
Dr. Ing. Ahmad Taqwa, MT.	10
RUNDOWN	11
The 5 th FIRST 2021 INTERNATIONAL CONFERENCE	11
(FORUM IN RESEARCH SCIENCE AND TECHNOLOGY)	11
SNAPTEKMAS (Seminar Nasional Aplikasi Teknologi pada Masyarakat) 2021	11
TRACK 1	14
(Engineering and Science)	14
TRACK 1	17
(Engineering and Science)	17
TRACK 1	20
(Engineering and Science)	20
TRACK 2	23
(Computer Science, Computer Engineering, Information System,	23
Informatics Management)	23
TRACK 2	25
(Computer Science, Computer Engineering, Information System,	25
Informatics Management)	25
TRACK 3 (Social Science)	27
TRACK 3 (Social Science)	29
MODELING OF INFILTRATION WELLS TO REDUCE RAINWATER RUNOFF OF BUILDINGS	53
ID: 3772	53
Radius Pranoto ^{1*} , Anggi Nidya S ¹ , Ricky RA ¹ , Djaka Suhirkam ¹ , Viktor Suryan ²	53

¹ Civil Department, Polytechnic State of Sriwijaya, Palembang 30139, Indonesia.....	53
² Civil Department, Palembang Aviation Polytechnic, Palembang 30139, Indonesia.....	53
FLEXURAL STRENGTH OF SELF-COMPACTING CONCRETE BEAMS.....	54
ID: 3860.....	54
Amiruddin ¹ , Ibrahim ¹ , Ika Sulianti ¹ , Agus Subrianto ^{1,*} , Muhamad Ramadhan ¹	54
¹ Polytechnic State of Sriwijaya,	54
THE EFFECT OF SHELL AS A SUBSTITUTION OF COARD AGGREGATE WITH SUPERPLASTICIZER ADDITIONAL ON THE COMPRESSION STRENGTH OF CONCRETE.....	55
ID: 4026.....	55
Lina Flaviana Tilik ^{1,*} Bambang Hidayat Fuady ² , Suhadi ³ , Rosy Armaini ⁴ , Fadhila Firdausa ⁵ , Muhammad Rifqi Agusri ⁶ , Puji Hartoyo ⁷	55
^{1,2,3,4,5,6,7} State Polytechnic of Sriwijaya.....	55
DESIGN OF GEOMETRIC AND RIGID PAVEMENT THICKNESS ON JALAN LINGKAR BARAT SP. SPORTS CENTER - BUKIT SULAP STA 0+100 - STA 7+583 LUBUKLINGGAU CITY, SOUTH SUMATERA PROVINCE.....	56
ID: 3935.....	56
Kosim ¹ , Julian Fikri ^{1*} , siswa Indra ¹ , Kiki Rizky Amalia ¹ , Intan Puspita Sari ² , Yudha Prasetya ²	56
¹ Lecturer of Civil Engineering State Polytechnis Of Sriwijaya.....	56
² Student of Prodi D-1V Road and Bridge Civil Engineering	56
UTILIZATION OF BOTTOM ASH AND SAWDUST WASTE AS A PARTIAL REPLACEMENT FOR FINE AGGREGATE IN THE MANUFACTURE OF CONCRETE.....	57
ID: 3907.....	57
Kosim, Zainuddin ¹ , Raja Marpaung ¹ , Dharma Prabudi ¹	57
¹ Department of Civil Engineering Polytechnic State of Sriwijaya.....	57
STUDY ON THE APPLICATION OF BICYCLE SPECIAL ROUTES AS AN ENVIRONMENTAL TRANSPORTATION IN THE CITY AREA OF PALEMBANG USING THE BLOS METHOD	58
ID: 3682.....	58
Efrilia Rahmadona ^{1,*} Norca Praditya ² M. Ade Surya Pratama ³ Sudarmadji ⁴ , Muhammad Iqbal ⁵ , Arief Perdana Kesuma ⁶ , Rica Solenne ⁷	58
^{1,2,3,4,5,6,7} State Polytechnic of Srwiwijaya	58
UTILIZATION OF REMOTE SENSING TECHNOLOGY FOR FLOOD DISTRIBUTION IN PALEMBANG CITY WEB- BASED	59
ID: 3854.....	59
Indrayani ^{1,*} Andi Herius ¹ , Akhmad Mirza ¹ , Arfan Hasan ¹	59

1 Civil Engineering Department, Politeknik Negeri Sriwijaya, Palembang Indonesia.....	59
UTILIZATION OF THE KELEKAR RIVER FLOW AS MICRO-HYDRO POWER PLANT	60
ID: 3992.....	60
Indrayani ^{1,2*} Aida Syarif ^{2,3} , Syahirman Yusi ^{2,4} , M. Noviansyah Nugraha ² , Renny Citra Ramadhani ²	60
¹ Civil Engineering Department, Politeknik Negeri Sriwijaya, Palembang Indonesia;.....	60
² Renewable Energy Engineering Study Program, Politeknik Negeri Sriwijaya, Palembang Indonesia;.....	60
³ Chemical Engineering Department, Politeknik Negeri Sriwijaya, Palembang Indonesia;	60
⁴ Commercial Administration Department, Politeknik Negeri Sriwijaya, Palembang Indonesia	60
IMAGE PROCESSING APPLICATION ON AUTOMATIC FRUIT DETECTION FOR AGRICULTURE INDUSTRY	61
ID: 3804.....	61
Tresna Dewi ^{1,*} Rusdianasari ² RD Kusumanto ³ Siproni ⁴	61
¹ Electrical Engineering Department, Politeknik Negeri Sriwijaya	61
² Renewable Energy Department, Politeknik Negeri Sriwijaya	61
³ Electrical Engineering Department, Politeknik Negeri Sriwijaya	61
⁴ Mechanical Engineering Department, Politeknik Negeri Sriwijaya	61
THE CONCEPT AND DESIGN OF SOLAR POWERED SPRINKLER SYSTEM BASED ON IOT MONITORING	62
ID: 3880.....	62
Tresna Dewi ^{1,*} Rusdianasari ² Ahmad Taqwa ³ Teddy Wijaya ⁴	62
¹ Electrical Engineering Department, Politeknik Negeri Sriwijaya	62
² Renewable Energy Department, Politeknik Negeri Sriwijaya	62
³ Renewable Energy Department, Politeknik Negeri Sriwijaya	62
⁴ Electrical Engineering Department, Politeknik Negeri Sriwijaya	62
RAPID TRANSIT (BRT) PUBLIC TRANSPORT SERVICE CORRIDOR I: ALANG LEBAR TO DEMPO DURING THE COVID 19 PANDEMIC IN THE CITY OF PALEMBANG	63
ID: 3837	63
Herlinawati ¹ , Yusri Bermawi ^{1,*} , Moch. Absor ¹ , A.Latif ¹ , Muhammad Dimas ¹ , Muhammad Arief M ¹ , Muhammad Geraeldy ¹ , Ibnusyah Alam ¹	63
¹ Civil Engineering, Politeknik Negeri Sriwijaya, Palembang, 30154, Indonesia	63
The Effect of Quenching Media on the Hardness of AISI 1045 Steel.....	64
ID: 4074.....	64
Mulyadi ¹⁾ , Dodi Tafrant ^{1,*} , Hendradinata ¹⁾ , Zainuddin ¹⁾	64
¹ Mechanical Engineering, State Polytechnic of Sriwijaya.....	64

Improvement of Original Soil with Addition of Variation of Embankment Based on CBR (California Bearing Ratio) Value	65
ID 4107.....	65
Ibrahim ¹ , Andi Herius ¹ , Nadra Mutiara Sari ¹ , M Aidil Iskandarsyah ² , M Okta Fathur Rahman ²	65
¹ Lecturer of Civil Engineering Sriwijaya State Polytechnic.....	65
² Student of D-III Civil Engineering Study Program Sriwijaya State Polytechnic.....	65
Narrative Review of Subchondral Bone Morphology on Cartilage Damage (Osteoarthritis)	66
ID: 4122.....	66
Nanda Yusril Mahendra ¹ , Dicky Pratama Putra ¹ , Imam Akbar ¹ , Risky Utama Putra ¹ , Akbar Teguh Prakoso ¹ , Muhammad Yanis ¹ , Hendri Chandra ¹ , Ardiyansyah Syahrom ^{2,3} , Hasan Basri ^{1*}	66
¹ Department of Mechanical Engineering, Faculty of Engineering, Universitas Sriwijaya, Indralaya, Ogan Ilir, Indonesia.	66
² Applied Mechanics and Design, School of Mechanical Engineering, Faculty of Engineering, Universiti Teknologi Malaysia 81310 UTM Johor Bahru, Malaysia.	66
³ Medical Devices and Technology Centre (MEDiTEC), Institute of Human Centred and Engineering (iHumEn), Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Malaysia	66
Numerical Investigation of the Mechanical Properties of 3D Printed PLA Scaffold	67
ID: 4124.....	67
Zainal Abidin ¹ , Irfan Ghani Fadhlurrahman ¹ , Imam Akbar ¹ , Risky Utama Putra ¹ , Akbar Teguh Prakoso ¹ , M. Zahri Kadir ¹ , Astuti ¹ , Ardiyansyah Syahrom ^{2,3} , Hasan Basri ^{1*}	67
¹ Department of Mechanical Engineering, Faculty of Engineering, Universitas Sriwijaya, Indralaya, Ogan Ilir, Indonesia.	67
² Applied Mechanics and Design, School of Mechanical Engineering, Faculty of Engineering, Universiti Teknologi Malaysia 81310 UTM Johor Bahru, Malaysia.....	67
³ Medical Devices and Technology Centre (MEDiTEC), Institute of Human Centred and Engineering (iHumEn), Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Malaysia	67
MODELING OF THREE PHASE INDUCTION MOTORS IN CONTROL SYSTEM LABORATORY AT THE ELECTRICAL DEPARTMENT OF STATE POLYTECHNIC OF SRIWIJAYA	68
ID: 4135.....	68
Masayu Anisah, ^{1,*} , Destra Andika Pratama, Niksen Alfzarizal ³ , Lindawati ⁴ , Anton Firmansyah ⁵ , Mery Aldah Regiani ⁶ , Sinta Nabila ⁷ , Safaa Najah Saud ⁸	68
^{1,2,3,4,5,6,7} Politeknik Negeri Sriwijaya, Jl. Srijaya Negara - Kota Palembang, 30139.....	68
⁸ Management and Science University, University Drive, Off Persiaran Olahraga, 40100 Shah Alam, Selangor, Malaysia	68
DEGRADATION OF METHYLENE BLUE DYE USING ZnO/NiFe ₂ O ₄ PHOTOCATALYST UNDER VISIBLE LIGHT ...	69

ID: 3967.....	69
Yuniar ^{1*} , Tri Mawarni ² , Poedji Loekitowati Hariani ³ , Muhammad Faizal ⁴ , Tuty Emilia Agustina ⁵	69
^{1,4,5} Chemical Engineering Department, Sriwijaya University, Palembang, Indonesia	69
³ Chemistry Department, Sriwijaya University, Palembang, Indonesia.....	69
² Chemical Engineering Department, State Polytechnic Sriwijaya, Palembang, Indonesia.....	69
SYNGAS ANALYSIS OF LOWRANK COAL GASIFICATION DOWNDRAFT PRODUCTS WITH VARIATIONS IN AIR FLOW RATE	70
ID: 3985.....	70
Aida Syarif ¹⁾ , Neli Masnila ²⁾ , Indrayani ³⁾ , M. Yerizam ⁴⁾ , Apriansyah Zulatama ⁵⁾ , Sarmidi ⁶⁾	70
¹⁾ Program Studi Magister Terapan Teknik Energi Terbarukan, Politeknik Negeri Sriwijaya.....	70
²⁾ Program Studi Sarjana Terapan Akutansi Bisnis, Politeknik Negeri Sriwijaya.....	70
³⁾ Program Studi Magister Terapan Teknik energy Terbarukan, Politeknik Negeri Sriwijaya.....	70
⁴⁾ Program Studi Magister Terapan Teknik energy Terbarukan, Politeknik Negeri Sriwijaya.....	70
PRACTICAL LEARNING BASED ON VIRTUAL REALITY METHODS AS A SOLUTION TO INCREASE EVALUATION LEVEL 1 RESULTS IN PRACTICAL LEARNING AT PT PLN (PERSERO) UPDL PALEMBANG	71
ID: 3764.....	71
Fajrie Agus Dwino Putra ^{1*} , Supli Efendi Rahim ² , Zulhipni Reno Saputra ³	71
¹ Instructor, PT PLN (Persero) UPDL Palembang, Palembang, Indonesia	71
² Lecturer, Kader Bangsa University, Palembang, Indonesia.....	71
³ Lecturer, Muhammadiyah University, Palembang, Indonesia	71
WITH THE TRAY DYER DRYING METHOD FOR MAKING HERBAL TEA FROM A MIXED FLOWER POLE (Clitoria ternatea) WITH GINGER POWDER (Zingiber officinale) ACCORDING TO INDONESIAN NATIONAL STANDARDS (SNI)	72
ID: 3931.....	72
Sofiah ^{1,*} ,A.Rizal Aswan ¹ , Isnandar Yulianto ¹ , Cindi Ramayanti ¹ , Aliyah Nahda Utami ¹	72
¹ Department of Chemical Engineering, Politeknik Negeri Sriwijaya	72
PROTOTYPE OF KEMPELANG FISH DRYERS REVIEWED FROM ENERGY OF H ₂ O THAT IS EVAPORATED TO AIR	73
ID: 3782.....	73
Ida Febriana ^{1,*} KA Ridwan ¹ , Anerasari M ¹ , Taufik Jauhari ¹	73
¹ Chemical Engineering Department, State Polytechnic of Sriwijaya, Indonesia	73
ANALYSIS OF SYNGAS RESULTS OF THE MAINDEPTH COAL GASIFICATION PROCESS WITH GASIFICATION DOWNDRAFT METHODS.....	74

ID: 4054.....	74
Erlinawati ¹ , Aida Syarif ² , Arizal Azwan ³ , Tahdid ⁴ ,	74
^{1,2,3,4} Energy Engineering Applied Undergraduate , Sriwijaya State Polytechnic.....	74
DESIGN AND PERFORMANCE OF SMALL-SCALE DOWNDRAFT BIOMASS GASIFICATION: A CASE STUDY OF	75
RICE HUSKS	
ID: 3999.....	75
Ozkar F. Homzah ^{1*} , Rachmat D Sampurno, A Junaidi ¹ , Dodi Tafrant ¹	75
¹ Department of Mechanical Engineering, Politeknik Negeri Sriwijaya, Palembang, Indonesia.....	75
.....	76
THE POTENTIAL OF CHAR COAL GASIFICATION AS AN ECO-FRIENDLY FUEL	
ID: 4016.....	76
Aria Yopianita ^{1*} , Aida Syarif ² , Muhammad Yerizam ²	76
¹ Master of Applied Renewable Energy Engineering, Sriwijaya State Polytechnic	76
² Chemical Engineering, Sriwijaya State Polytechnic	76
EFFECT OF SULFURIC ACID AND FERMENTATION TIME ON BIOETHANOL PRODUCTION FROM EMPTY FRUIT	77
BUNCH (EFB)	
ID: 3900.....	77
*Martha Aznury ¹ Ahmad Zikri ¹ Aisyah Suci Ningsih ¹ Siti Chodijah ¹ Felisia Hanura ¹ Muhammad Albarr Aksa ¹ Nova Rachmadona ²	77
¹ Department of Chemical Engineering, Politeknik Negeri Sriwijaya, Palembang, Indonesia.....	77
² Department of Chemical Science and Engineering, Graduate School of Engineering, Kobe University, Japan...	77
UTILIZATION OF PALM KERNEL OIL (PKO) AS VEGETABLE OIL IN MAKING MAYONNAISE WITH THE ADDITION	78
OF VIRGIN COCONUT OIL (VCO) AND PALM COOKING OIL (PCO)	
ID: 4041.....	78
*Martha Aznury ¹ Ahmad Zikri ¹ Aisyah Suci Ningsih ¹ Siti Chodijah ¹ M.Arif Abdul Ghoni ¹ Rizka Yuni Zhafira ¹ Nova Rachmadona ²	78
¹ Department of Chemical Engineering, Politeknik Negeri Sriwijaya, Palembang, Indonesia.....	78
² Department of Chemical Science and Engineering, Graduate School of Engineering, Kobe University, Japan...	78

PRODUCTION OF SOLID SOAP WITH ADDITION OF GREEN BETAL LEAVE (Piper betle L.) EXTRACT AND LEFT	79
LEMON EXTRACT(Cymbopogon nardus L. Rendle) AS ANTIOXIDANTS	
ID: 4042.....	79
*Martha Aznury ¹ Ahmad Zikri ¹ Aisyah Suci Ningsih ¹ Elina Margaretty ¹ Liona Agriani ¹ Indriani ¹ Nova Rachmadona ²	79
¹ Department of Chemical Engineering, Politeknik Negeri Sriwijaya, Palembang, Indonesia.....	79
² Department of Chemical Science and Engineering, Graduate School of Engineering, Kobe University, Japan...	79
PURIFICATION OF RAW MATERIAL AND BIODIESEL PRODUCTS FROM WASTE OIL WITH DEEP EUTETIC SOLVENT (DES)	80
ID: 4043.....	80
Sahrul Effensi ¹⁾ Aida syarif ²⁾ , Irawan ³⁾	80
1,2,3Chemical Engineering Department, Politeknik Negeri Sriwijaya, Jl. Sriwaja Negara, Bukit Besar, Ilir Barat I, Palembang 30139, South Sumatera, Indonesi	80
FIELD EXPERIMENTAL STUDY ON ELECTRICAL POWER GENERATION USING AC SINGLE-PHASE PERMANENT MAGNET GENERATOR	81
ID 4118.....	81
I Made Wiwit Kastawan ^{1*} , Erwin Yusuf ² , Rusmana ³ , Krisna ⁴	81
SIMULATION ON EFFECTS OF USING CAPACITOR FOR REACTIVE POWER (VAR) COMPENSATION ON ELECTRICAL POWER SUPPLY QUALITY	82
ID 4119.....	82
Siti Saodah ¹ , I Made Wiwit Kastawan ^{2*} , Erwin Yusuf ³ , Bambang Puguh Manunggal ⁴ ., Maryanti ⁵	82
Biodiesel from Pyrolysis Fatty Acid Methyl Ester (FAME) using Fly Ash as a Catalyst	83
ID: 4066.....	83
Yohandri Bow ^{1,*} Abu Hasan ² , Rusdianasari ² , Zakaria ³ , Bambang Irawan ² , Nedia Sandika ²	83
¹ Energy Engineering Department, Politeknik Negeri Sriwijaya, Palembang, Indonesia	83
² Renewable Energy Engineering Department, Politeknik Negeri Sriwijaya, Palembang, Indonesia	83
³ English Department, Politeknik Negeri Sriwijaya, Palembang, Indonesia	83
MODELING OF VARIABLE SPEED DRIVE IN THE CONTROL SYSTEM LABORATORY AT THE ELECTRICAL DEPARTMENT OF STATE POLYTECHNIC OF SRIWIJAYA	84
ID: 4151.....	84
Siswandi, ^{1,*} Anton Firmansyah ² , Destra Andika Pratama ³ , Yessi Marniati ⁴ , Ichwaldi Amzah ⁵ , Muhammad Irfan Pratama ⁶ , Ichwaldi Amzah ⁷ , Muhammad Irfan Pratama ⁸	84

1,2,3,4,5,6 Politeknik Negeri Sriwijaya, Jl. Srijaya Negara - Kota Palembang, 30139.....	84
7,8 Politeknik Mukah Sarawak, KM 7.5, Jalan Oya 96400 Mukah Sarawak, Malaysia	84
IDENTIFICATION OF ROAD CONDITION SURVEY RESULTS ON THE MAKING OF MAP OF PALEMBANG CITY	85
ROAD NETWORK BASED ON GIS	
ID: 3806.....	85
Norca Praditya ¹ , Indrayani ^{1,*} , Andi Herius ¹ , Kosim ¹ , Tata Peryoga ² , Mendro Anggoro ²	85
¹ Civil Engineering Department, Politeknik Negeri Sriwijaya, Palembang Indonesia	85
² IDN Western Australia, Perth	85
MODELLING DESIGN DIFFUSER HORIZONTAL AXIS WIND TURBINE	86
ID: 3889.....	86
Fatahul Arifin ^{1,*} , RD Kusumanto ³ , Yohandri Bow ² , Ahmad Zamheri ³ , Rusdianasari ² , Min Wen Wang ⁴ , Afries Susandi ² , Yusuf Dewantoro Herlambang ^{5,1} Department of Mechanical Engineering, Politeknik Negeri Sriwijaya, Jalan Srijaya Negara, Palembang, Indonesia	86
² Department of Electrical Politeknik Negeri Sriwijaya, Jalan Srijaya Negara, Palembang, Indonesia	86
³ Department of Renewable Energy Engineering, Politeknik Negeri Sriwijaya, Jalan Srijaya Negara, Palembang, Indonesia	86
⁴ Department of Mechanical Engineering, National Kaohsiung University Science and Technology, No. 415, Jiangong Rd, Kaohsiung, Taiwan	86
⁵ Department of Mechanical Engineering, Politeknik Negeri Semarang, Jl. Prof. Sudarto, Semarang, Indonesia ...	86
DESIGN WIND TURBINE FOR EXHAUST WIND AREA COAL MINING	87
ID: 3947.....	87
RD Kusumanto ¹ , Fatahul Arifin ^{2,*} , Carlos R.S ¹ , Ahmad Zamheri ² , Rusdianasari ³ , Min Wen Wang ⁴ , RM Fauzi ³ , Yusuf Dewantoro Herlambang ⁵	87
¹ Department of Electrical Politeknik Negeri Sriwijaya, Jalan Srijaya Negara, Palembang, Indonesia	87
² Department of Mechanical Engineering, Politeknik Negeri Sriwijaya, Jalan Srijaya Negara, Palembang, Indonesia	87
³ Department of Renewable Energy Engineering, Politeknik Negeri Sriwijaya, Jalan Srijaya Negara, Palembang, Indonesia	87
⁴ Department of Mechanical Engineering, National Kaohsiung University Science and Technology, No. 415, Jiangong Rd, Kaohsiung, Taiwan	87
⁵ Department of Mechanical Engineering, Politeknik Negeri Semarang, Jl. Prof. Sudarto, Semarang, Indonesia ...	87
The Production of Biogas and Electrical Energy from Market Waste at Fixed Dome Bio-digester in Talang Banjar Jambi	88

ID: 4062.....	88
Leila Kalsum ^{1,*} Yordan Hasan ² , Rusdianasari ¹ , Aida Syarif ¹ , Dayaningrat ¹ , Syaiful M ¹	88
¹ Renewable Energy Study Program, Sriwijaya State Polytechnic, Palembang Indonesia	88
² Electronic Engineering Sriwijaya State Polytechnic, Palembang Indonesia.....	88
Comparison Progressive Web Application in Learning Management System (LMS)	89
ID: 4087.....	89
Dian Nugraha ^{1,*} Febria Anjara ² , Safira Faizah ³	89
^{1,3} Faculty Engineering & Computer Science, Jakarta Global University, West Java-Indonesia	89
² Faculty Economy & Business, Jakarta Global University, West Java-Indonesia	89
The Effectiveness of Solar panels From The Installation Location Changes In Angle and Light	90
ID: 4047.....	90
Yessi Marniati ^{1,*} , Nofiansah ¹ , Herman Yani ¹ , Siswandi ¹	90
¹ Electrical Engineering Departement, Politeknik Negeri Sriwijaya, Palembang Indonesia	90
THE NUMBER OF VISITORS OF THE TELECOMMUNICATION ENGINEERING LABORATORY THE PANDEMIC TIME CORONA VIRUS DISEASE LIMITDURING2019 (COVID-19) BASED ON THE INTERNET OF THINGS	91
ID: 4049.....	91
M. Zakuan Agung ^{1,*}), Suzan zefi ²), R.A Halimatussa'diyah ³), Rapiko Duri ⁴), Dea Rahma Dona ⁵), Fitri Rahma Daliza ⁶)	91
¹⁻⁶ Department of Polytechnic Sriwijaya, Jalan Srijaya Negera, Bukit Besar, Palembang - Indonesia.....	91
Energy Management on Electric Vehicles Using Fast Charging Banking Capacitor using Internet of Things (IoT) System	92
ID: 4051.....	92
Selamat Muslimin ^{1,*} Renny Maulidda ¹ Evelina ¹ M. Nawawi ¹ Iskandar Lutfi ¹ Johansyah Al Rasyid ¹ M. Fadli ¹ Puput Anggraini ¹ M. Yusuf ¹ Wanda Merian PA ¹	92
¹ Politeknik Negeri Sriwijaya.....	92
Implementation of Solar Cells as an Alternative Energy Source for Automatic Water Tank Filling in Hydroponic System	93
ID: 4064.....	93
Yudi Wijanarko ¹ Renny Maulidda ^{1,*} Masayu Anisah ¹ Evelina ¹ Sara Yulida ¹ Tarisa Ramadhani ¹ Phillips Dharmaraj ² Metrina Jasman ³	93
¹ Politeknik Negeri Sriwijaya, Palembang, Indonesia	93
² Politeknik Kota Kinabalu, Malaysia	93
³ SMK Negeri 1 Indralaya Selatan, Indonesia	93

.....	94
IMPLEMENTATION OF SMART GRID SYSTEM FOR ALTERNATIVE ENERGY POWER PLANTS SOURCES	
ID: 3786.....	94
Masayu Anisah ¹ Yudi Wijanarko ¹ Renny Maulidda ^{1,*} Johansyah Al Rasyid ¹ Dimas Prasetya WP ¹ M. Dandy Ramadhan ¹ Mohammad Noviansah ¹	94
¹ State Polytechnic of Srwiwijaya.....	94
IMPLEMENTATION OF SMART GRID SYSTEM ON ALTERNATIVE ENERGY OF FLOATING HOUSES AT MUSI	
.....	95
RIVER BANK ESTUARY OF THE OGAN RIVER	
ID: 3790.....	95
Yudi Wijanarko ¹ , Adi Syakdani ¹ , Ekawati Prihatini ¹ , Sairul Effendi ¹ , Aulia Rizki Utami ¹ , Trigitha Melintika ¹ , Ryo Pakusadewo ¹	95
¹ Electrical Engineering Department, Politeknik Negeri Sriwijaya.....	95
The Effect of Carbonization Temperature and Concentration of KOH Activator on the Quality of Eucalyptus Pellita	
.....	96
Activated Carbon in Fe Absorption	
ID: 4063.....	96
Leila Kalsum ^{1*)} , Idha Silviyati. ¹⁾ , Jenie Fahlevi Putri ¹⁾	96
¹ Department of Chemical Engineering Study Program, Sriwijaya State Polytechnic, Bukit Besar, Palembang 30139, Indonesia.....	96
SOLAR PANEL AS ALTERNATIVE ENERGY SOURCE FOR WATER PUMP CONTROL SYSTEM AT THE FLOATING	
.....	97
HOUSE IN THE PALEMBANG MUSI RIVER BANK	
ID: 4101.....	97
Ekawati Prihatini ¹ , Yudi Wijanarko ² , Yeni Irdyanti ³ , Herman Yani ⁴ , Muhammad Aldo Pratama ⁵ , Suryani ⁶ , Charles Sumion ⁷	97
¹⁻⁶ Electrical Engineering Department, Polytechnic State of Sriwijaya, Jalan Srijaya Negara Bukit Besar Palembang City, South Sumatera, 30139, Indonesia.....	97
⁷ Politeknik Kota Kinabalu, Jalan Politeknik No. 4 KKIP Barat, 88460 Kota Kinabalu Industrial Park, Sabah, Malaysia.....	97
.....	98
Comparison of Batteries Used in Electrical Vehicles (A Review)	
ID: 4103.....	98
Selamat Muslimin ^{1,*} Zainuddin Nawawi ² , Bhakti Yudho Suprpto ³ , Tresna Dewi ⁴	98

1,2,3,4 Electrical of Engineering, University of Sriwijaya.....	98
Hardware Design and Simulation of Lung Sound Detector to Analyze Lung Abnormalities Based On Arduino Mega,	99
NodeMCU ESP32, and Internet of Things	
ID: 4125.....	99
Amperawan ¹ , Destra Andika ² , Dewi Permatasari ³ , Sabilal Rasyad ⁴ , Zainudin b Mat Taib ⁵ , Nuwairani Azurawati bt Siha ⁶ , Aldi Wijaya ⁷ , Muhammad Taufiqurrahman Arrasyid ⁸	99
¹⁻⁶ Department of Electronic Engineering, Politeknik Negeri Sriwijaya, JL.Srijaya Negara Bukit Besar, Palembang, 30139, Indonesia	99
, Politeknik Negeri Sriwijaya, JL.Srijaya Negara Bukit Besar, Palembang , 30139, Indonesia.....	99
⁷⁻⁸ Department of Electrical Engineering, Politeknik Mukah Serawak, JL. Oya-Mukah KM 7, Mukah Serawak, 9640, Malaysia	99
.....	100
Design of Touch Key-Voice Command Based Vehicle Additional Security System	
ID: 3791.....	100
Muhammad Firdaus Jauhari ^{1,*} , Rusmini Sri Maryati ¹ , Raihan ¹	100
¹ Automotive Mechanical Engineering, Politeknik Negeri Banjarmasin, Banjarmasin, Indonesia,	100
.....	101
AUTOMATION OF THE PALEMBANG SEMAGE FABRIC YARN SPINNER	
ID: 3694.....	101
Eka Susanti ¹⁾ , Ica Admirani ²⁾ , Romi Wilza ³⁾ , Irawan Hadi ⁴⁾ , Sholihin ⁵⁾	101
¹⁻⁵ State Polytechnic of Sriwijaya, Jalan Srijaya Negera, Bukit Besar, Palembang - Indonesia.....	101
.....	102
WebRTC Signaling Using npRTC For OnlineVirtual Classroom	
ID: 4088.....	102
Raswa ^{1,*} Sumarudin ^{2,*} , Eka Siswantohadi ^{3*}	102
¹ Politeknik Negeri Indramayu	102
² Politeknik Negeri Indramayu	102
³ Politeknik Negeri Indramayu	102
.....	103
IoT-Based Technological Innovation in Improving the Productivity of Macan Kumbang Fish Cultivator	
ID: 3730.....	103
Nelly Masnila ¹ , Hendradinata ² , Indra Griha Tofik Isa ^{3,*} , Riana Mayasari ⁴	103

1,4 Accounting Department, Politeknik Negeri Sriwijaya	103
2 Mechanical Engineering Department, Politeknik Negeri Sriwijaya	103
3 Informatics Management Department, Politeknik Negeri Sriwijaya	103
.....	104
TPACK FRAMEWORK BASED INTERACTIVE DIGITAL LEARNING	
ID: 3777	104
Hetty Meileni ^{1,*} , Indra Satriadi ² , Sony Oktapriandi ³ , Desi Apriyanty ⁴	104
1-4 State Polytechnic Of Sriwijaya	104
DEVELOPMENT OF MULTI PLATFORM GEOGRAPHIC INFORMATION SYSTEM ASSESSMENT OF PROSPECTIVE	
.....	105
BIDIKMISI STUDENTS USING REUSE DRIVEN SOFTWARE DEVELOPMENT PROCESS METHOD	
ID: 3788	105
M Aris Ganiardi ¹ , Nita Novita ² , Indri Ariyanti ³ , Delta Khairunnisa ⁴	105
1-4 Informatics Management Department, Politeknik Negeri Sriwijaya, Srijaya Negara Street, Palembang, 30139, Indonesia	105
.....	106
DEVELOPMENT OF 3D MULTIMEDIA AS A LEARNING TOOLS ONLINE BASED VIRTUAL REALITY	
ID: 3797	106
Sholihin ¹⁾ , Emilia Hesti ²⁾ , Sarjana ³⁾ , Adewasti ⁴⁾	106
1-4 Department of Polytechnic Sriwijaya, Jalan Srijaya Negera, Bukit Besar, Palembang - Indonesia	106
.....	107
Design of Air Quality Monitoring System Using LoRa Communication Technology	
ID: 3799	107
Mohammad Fadhli ^{1,*} , Asriyadi ¹ , Lindawati ¹ , Irma Salamah ¹	107
1 Politeknik Negeri Sriwijaya	107
.....	108
INNOVATION TECHNOLOGY OF LEKOR DOUGH MIXER BASED INTERNET OF THING	
ID: 3861	108
Suzan Zefi ¹ , Eka Susanti ² , M. Zakuan Agung ³ , R.A Halimatussa'diyah ⁴	108
1 Department of Polytechnic Sriwijaya, Jalan Srijaya Negera, Bukit Besar, Palembang - Indonesia	108
DEVELOPMENT OF 3D MULTIMEDIA AS A PRACTICAL SUGGESTION FOR VIRTUAL REALITY-BASED DIGITAL	
.....	109
ENGINEERING	

ID: 3857.....	109
Martinus Mujur Rose ¹⁾ , Sholihin ²⁾ , Sarjana ³⁾ , Ir. H. Abdul Rakhman ⁴⁾ , Ir. Ali Nurdin ⁵⁾	109
¹⁻⁵ Department of Polytechnic Sriwijaya, Jalan Srijaya Negera, Bukit Besar, Palembang - Indonesia	109
.....	110
Single Page Application for Business Intelligence Dashboard	
ID: 3521.....	110
M. Miftakul Amin * ¹ , Adi Sutrisman ² , Yevi Dwitayanti ³	110
^{1,2} Department of Computer Engineering, Politeknik Negeri Sriwijaya, Jl. Srijaya Negara Bukit Besar, Palembang, 30139, Indonesia	110
³ Department of Computer Accounting, Politeknik Negeri Sriwijaya, Jl. Srijaya Negara Bukit Besar, Palembang, 30139, Indonesia	110
.....	111
Evaluating Users' Emotion in Web-Based Geographic Information System	
ID: 4025.....	111
Leni Novianti ¹ , Indra Griha Tofik Isa ^{2,*} , Indri Ariyanti ³ , Rika Sadariawati ⁴ , Anitawati Mohd Lokman ⁵ , Azhar Bin Abd Aziz ⁶ , Afiza Binti Ismail ⁷	111
¹²³⁴ Politeknik Negeri Sriwijaya, Palembang, Indonesia	111
⁵⁶⁷ Universiti Teknologi MARA, Shah Alam, Malaysia	111
.....	112
The Best Academic Administration Personnel Selection Model Using the Weighted Sum Model (WSM)	
ID: 3535.....	112
M. Miftakul Amin * ¹ , Yevi Dwitayanti ²	112
¹ Department of Computer Engineering, Politeknik Negeri Sriwijaya, Jl. Srijaya Negara Bukit Besar, Palembang, 30139, Indonesia	112
² Department of Computer Accounting, Politeknik Negeri Sriwijaya, Jl. Srijaya Negara Bukit Besar, Palembang, 30139, Indonesia	112
Establishing the Interface for G-Bot Monitoring and Controlling System	
ID: 3800.....	113
Dewi Permata Sari ¹ , Fatma Indah Sari ² , Nyayu Latifah Husni ^{3,*} , Nurhaida ⁴ , Yogi Eka Fernandes ⁵ , Ade Silvia Handayani ⁶	113
¹⁻⁵ Electronic Engineering Study Program, Electrical Engineering Department, Sriwijaya State Polytechnic.....	113
⁶ Telecommunication Engineering Study Program, Electrical Engineering Department, Sriwijaya State Polytechnic	113

.....	114
Design of a 4G signal amplifier repeater biquad antenna at 1800 MHz	
ID: 3990.....	114
Ade Silvia Handayani ^{1*} , Sopian Soim ² , Ciksadan ³ , Rivaldo Arviando ⁴	114
¹⁻⁴ Department of Electrical Engineering, Politeknik Negeri Sriwijaya, Palembang, Indonesia.....	114
.....	115
Design and Configuration of 4G Repeater Booster Device at 1800MHz	
ID: 3988.....	115
Ade Silvia Handayani ^{1*} , Sopian Soim ² , Emilia Hesti ³ , Ciksadan ⁴ , Nyayu Latifah Husni ⁵ , Abu Hasan ⁶	115
¹ Department of Electrical Engineering, Politeknik Negeri Sriwijaya, Palembang, Indonesia	115
MULTIMEDIA DEVELOPMENT AS CREATIVITY IN THE SOCIALIZATION OF COVID19 VACCINATION AGAINST	
.....	116
THE PUBLIC	
ID: 3863.....	116
Dewi Irmawati ^{1,*} , Devi Sartika ² , Ienda Meiriska ³ , Leni Novianti ⁴	116
^{1,,2,3,4} Study Program of Informatics Management, State Polytechnic of Sriwijaya	116
PERFORMANCE OPTIMATMIZATION OF YAGI ANTENNA DEVICES FOR DETECTING QUALITY LEVELS RIVER	
.....	117
WATER BASED ON THE INTERNET OF THING	
ID: 3767.....	117
Irawan hadi ^{1,*} , Martinus Mujur Rose ¹ , Adewasti ¹ , Ciksadan ¹	117
¹ State Polytechnic of Sriwijaya, Jalan Srijaya Negera, Bukit Besar, Palembang - Indonesia.....	117
.....	118
Preliminary study: M-Health based on IoT and Machine Learning	
ID: 4032.....	118
Ahmad Taqwa ¹ , *Ade Silvia Handayani ² , Sopian Soim ³ , Carlos RS ⁴ , Rahmat Budiarto ⁵ , Syifa Amira Zahra ⁶ , Junio Andika Danda ⁷	118
¹ Politeknik Negeri Sriwijaya.....	118
⁵ AlBaha University, KSA.....	118
.....	119
Analysis of Android-based Body Health Monitoring System Results using Fuzzy Mamdani Method	
ID: 3989.....	119
Ade Silvia Handayani ^{1*} , Ahmad Taqwa ² , Irawan Hadi ³ , Martinus Mujur Rose ⁴ ,	119

Nyayu Latifah Husni ⁵ , Sopian Soim ⁶ , Ratri Agustina ⁷	119
¹⁻⁷ Department of Electrical Engineering, Politeknik Negeri Sriwijaya, Palembang, Indonesia.....	119
*Corresponding author. Email: ade_silvia@polsri.ac.id.....	119
.....	120
Design of Application an Intelligent Transportation System for Monitoring Traffic Accidents	
ID: 4035.....	120
*Ade Silvia Handayani ¹ , Sopian Soim ² , Carlos RS ³ , Syifa Amira Zahra ⁴ , Elisa Islami Putri ⁵	120
¹⁻⁵ Politeknik Negeri Sriwijaya	120
GEOGRAPHIC INFORMATION SYSTEM MAPPING AND MANAGEMENT OF CHILD WITH THE HIGHEST NUTRITIONAL POTENTIAL IN PRABUMULIH CITY USING K-MEANS CLUSTERING METHOD (CASE STUDY:	121
PRABUMULIH CITY HEALTH OFFICE)	
ID: 4096.....	121
Leni Novianti ^{1,*} , Robinson ² , Ienda Meiriska ³ , Resti Atika Sari ⁴	121
^{1,2,3,4} Study Program of Informatics Management,State Polytechnic of Sriwijaya.....	121
.....	122
COVID 19 Detection Application At Siti Fatimah Hospital Method of Using Deep Learning	
ID: 4098.....	122
Jayah ¹ , Leni Novianti ^{1,*} , Ida Wahyuningrum	122
¹ Informatics Management, State Polythechnic of Sriwijaya	122
Visual Studio Code for Activity Monitoring Interface	123
Nyayu Latifah Husni ^{1,*} Putri Adelia Rahma Sari ² Tresna Dewi ³ Ade Silvia Handayani ⁴ Devi Sartika ⁵ Akhmad Mirza ⁶	123
ID 4114.....	123
¹⁻⁶ State Polytechnic of Sriwijaya.....	123
*Corresponding author. Email: ade_silvia@polsri.ac.id	123
Solar Panel Analysis for Activity Monitoring System	124
ID 4111.....	124
Nyayu Latifah Husni ¹ , Putri Adelia Rahma Sari ² , Ade Silvia Handayani ^{3,*} , Yeni Irdyanti ⁴ A. Rakhman ⁵ , Hairul ⁶ , Seyed Amin Hosseini Seno ⁷ Wahyu Caesarendra ⁸	124
.....	125
THE INNOVATION OF SOUTH SUMATERA TRADITIONAL BATIK E-COMMERCE APPLICATIONS	
ID: 3847.....	125

Ayu Chotibah ^{1,*} , Bainil Yulina ² , Desi Apriyanty ³ , Evada Dewata ⁴ , Pridson Mandiangan ⁵	125
^{1,2,3,4,5} Politeknik Negeri Sriwijaya	125
THE ANALYSIS OF COST QUALITY ON PRODUCTIVITY OF IRON RAILING PRODUCTS IN SMALL AND MEDIUM	126
BUSINESS IN PALEMBANG	
ID: 3683.....	126
M. Thoyib ¹ , Riza Wahyudi ¹ , Firmansyah ¹ , Darul Amri ¹	126
¹ State Polytechnic of Sriwijaya	126
.....	127
Quality of Financial Reporting and Impact of GGG Implementation: Study on Local Government in Indonesia	
ID: 3757	127
Nelly Masnila ¹ , Firmansyah ² , Jovan Febriantoko ³ , Riana Mayasari ^{4*} , Jamaliah Said ⁵	127
^{1,2,3,4} Department of Accounting, State Polytechnic of Sriwijaya, Palembang, Indonesia	127
⁵ Accounting Research Institute, Universiti Teknologi MARA, Shah Alam, Malaysia	127
An Error Analysis of English Sentence Construction in Writing Subject Made by the Students of the English Department	128
at Sriwijaya State Polytechnics	
ID: 3796.....	128
Evi Agustina Sari ^{1,*} Sri Gustiani ¹ , Yusri ¹ , Tiur Simanjuntak ¹	128
¹ Sriwijaya State Polytechnics	128
.....	129
DISCLOSURE OF SUSTAINABLE PERFORMANCE IN HIGHER EDUCATION IN INDONESIA	
ID: 3827	129
Edwin Frymaruwah ¹ , Farah Aida Ahmad Nadzri ² , Periansya ¹ , Evada Dewata ¹	129
¹ Department of Accounting, Politeknik Negeri Sriwijaya, Palembang, Indonesia	129
.....	130
Improvement of LPKA Class 1 Palembang Electronic Dashboard with Field Performance Monitoring	
ID: 3976.....	130
Hendra Hadiwijaya ¹ Febrianty ² Rezania Agramanisti Azdy ^{3*}	130
^{1,2} Accounting Study Program, Palembang Palcomtech Polytechnic, Indonesia	130
³ Informatics Study Program, STMIK PalComTech, Indonesia	130

OPTIMIZATION OF INCOME PARAMETERS OF SONGKET CRAFTSMEN ON KOPERASI SONGKET PALEMBANG	131
ID: 3853.....	131
Neneng Miskiyah ^{1*} , Purwati ¹ , Yulia Pebrianti ¹ , Ketu Purnamasari ¹	131
¹ Department of Business Administration, Sriwijaya State Polytechnic, Palembang, Indonesia	131
.....	132
Welfare Evaluation of the Duck Breeding in Gandus Subdistrict, Palembang	
ID: 3994.....	132
Marieska Lupikawaty ^{1*} , Neneng Miskiyah ¹ , Purwati ¹ , Ketu Purnamasari ¹ , Julito Contado Aligaen ²	132
¹ Business Management Study Program, Department of Business Administration, Sriwijaya State Polytechnic ..	132
² Social Science Department, Iloilo Science, and Technology University Philippines	132
.....	133
Stock Price Valuation Using the Dividend Discount Model on IDX Mining Period 2011-2020	
ID: 3995.....	133
Dinda Febriani ¹ , Marieska Lupikawaty ^{1*} , Al Hushori ² , Haris Wilianto ²	133
¹ Sriwijaya State Polytechnic Business Management Study Program.....	133
² Business Administration Study Program, Sriwijaya State Polytechnic	133
Digital Branding Model for Jumptan and Songket Fabrics: as a Continuity Strategy for Marketing Palembang Local	134
Products	
ID: 4019.....	134
Desloehal Djumrianti ¹ , Rita Martini ² , Ikhtison Mekogga ³ , Alfitriani ⁴	134
¹ Business Administration Department, Politeknik Negeri Sriwijaya, Palembang, Indonesia	134
² Accounting Department, Politeknik Negeri Sriwijaya, Palembang, Indonesia	134
³ Computing Technique Department, Politeknik Negeri Sriwijaya, Palembang, Indonesia	134
⁴ Business Administration Department, Politeknik Negeri Sriwijaya, Palembang, Indonesia	134
.....	135
Perceptions of Use of Food Delivery Applications and Its Impact on Sales of Culinary Traders in Palembang City	
ID: 4023.....	135
Muhammad Husni Mubarak ¹ , Desi Indriasari ¹ Eka Jumarni ¹ Indra Satriawan ¹	135
¹ Department of Accounting, State Polytechnic of Sriwijaya, Palembang	135

Effect of Labor, Technology and Experience On Productivity of Rubber Smallholders In Kabupaten Banyuasin With Training as Moderating Variables	136
ID: 4038.....	136
Yahya ^{1,*} M. Yusuf ² , Elisa ³ , Yusnizal Firdaus ⁴ , AlHushori ⁵ , Suyatno Ladigi ⁶	136
^{1,2,3,4,5} Department of Business Administration, Sriwijaya State Polytechnic, Indonesia	136
⁶ Sosial Sains Gunaan, Universiti Sultan Zainal Abidin, Terengganu, Malaysia	136
DETERMINATION OF THE PERFORMANCE OF LOCAL GOVERNMENTS WITH AUDIT OPINIONS AS MODERATION VARIABLES IN SOUTH SUMATRA	137
ID: 4075.....	137
Niken Ayuningrum ¹ , Dian Ofasari ²	137
¹ Accounting Study Program, Sekayu Polytechnic.....	137
.....	138
Factors Affecting Customer Adoption to Mobile Banking Service	
ID: 4137.....	138
Dewi Fadila ^{1,*} Hendra Sastrawinata ² . Markoni Badri ³ . Agung Anggoroseto ⁴	138
Mohd. Fadzli bin Ahmad ⁵ . Tayie Anak Ankus ⁶	138
¹ <i>Business Administration Department. State Polytechnic of Sriwijaya, Indonesia</i>	138
^{2,3,4} <i>Business Administration Department. State Polytechnic of Sriwijaya, Indonesia</i>	138
^{5,6} <i>Commerce Depatment. Politeknik Mukah Malaysia</i>	138
The Role of Product Differentiation and Word of Mouth Promotion on Purchase Decision of Creative Industrial Products In Semarang City Waste Bank	139
ID: 3872.....	139
Hikmah ¹ , Andalan Tri Ratnawati ¹ , Susetyo Darmanto ^{1,*}	139
¹ Fakultas Ekonomika dan Bisnis, Universitas 17 Agustus 1945 Semarang, Semarang, Indonesia,	139
.....	140
ACCOUNTING COMICS AS A MEDIUM OF LEARNING	
ID: 3893.....	140
Rosy Armaini ¹⁾ , Maria Maria ^{2)*} , Leni Noviyanti ³⁾ , and Yevi Dwitayani ⁴⁾	140
^{1,2,4)} Accounting Department, State Polytechnic of Sriwijaya,	140

3) Informatics management Department. State Polytechnic of Sriwijaya,	140
.....	141
The Effect of Servicescape on Tourist Revisit Intention at Water Sports and Recreation Tourism Destination	
ID: 3915.....	141
Ambarwati, Risma ¹ , Iswan, Salsabila Rahmadina Putri ² , Ridho, Sari Lestari Zainal ^{3,*} , Jauhari, Hadi ⁴ , Paisal ⁵ , Afriawati ⁶	141
¹²³⁴⁵⁶ Politeknik Negeri Sriwijaya	141
THE FACTORS AFFECTING REGIONAL EXPENDITURES ON REGENCY/MUNICIPALITY IN SOUTH SUMATERA	
.....	142
PROVINCE	
ID: 3949.....	142
Sherly Amerta Agustina ^{1,*} , M. Thoyib ¹ , Nurhasanah	142
¹ State Polytechnic of Sriwijaya	142
.....	143
Evaluation of Regional Financial Management Based on Local Government Information Systems	
ID: 3981.....	143
Maitsarana Ishmaturahwa ¹ , Sulaiman ¹ , Rita Martini ^{1*} , M. Thoyib ¹ , Kartika Rachma Sari ¹	143
¹ Accounting Department, Polytechnic State of Sriwijaya, Palembang 30139, Indonesia.....	143
.....	144
FINANCIAL PERFORMANCE ANALYSIS AT PT BANK MUAMALAT INDONESIA, Tbk.	
ID: 3983.....	144
M.Thoyib ^{1*} , Rita Martini ¹ , Tarisa Salsabella ¹ , Marsahanda Aprilia ¹	144
¹ Accounting Department, Polytechnic State of Sriwijaya, Palembang 30139, Indonesia.....	144
Poverty Reduction in South Sumatera with Optimization of Village Funds, Allocation of Village Funds, and Village	
.....	145
Original Income	
ID: 3771.....	145
Rita Martini ^{1*} , Endah Widyastuti ¹ , Sukmini Hartati ¹ , Zulkifli ¹ , Mardhiah ¹	145
¹ Accounting Department, Polytechnic State of Sriwijaya, Palembang 30139, Indonesia.....	145
PROFITABILITY, COMPANY SIZE, AUDIT DELAY, AND FINANCIAL REPORTING DELAYS IN COVID-19 PANDEMIC	
.....	146
ERA	
ID: 3855.....	146

Sukmini Hartati ¹ , Rita Martini ¹ , Desri Yanto ¹ , Indriani Indah Astuti ¹ , Kartini Binti Ibrahim ²	146
¹ Polytechnic State of Sriwijaya, Palembang, Indonesia	146
² Polytechnic of Mukah, Malaysia	146
.....	147
Hotel and Restaurant Taxes Role to the Local Original Revenue of Regency/City in South Sumatera	
ID: 4001.....	147
Sovi Julianda Wahya ¹ , Sukmini Hartati ¹ , Eka Jumarni Fithri ¹ , Rita Martini ^{1*}	147
¹ Accounting Department, Polytechnic State of Sriwijaya, Palembang 30139, Indonesia.....	147
THE CALCULATION OF PRODUCT COMBINATION BY USING LINEAR PROGRAMING SIMPLEX METHOD TO	
.....	148
PROFIT MAXIMIZE AT ROTI SAHABAT PALEMBANG CITY	
ID: 4033.....	148
Nurya Mellinda ¹ , Afrizawati ² , Elisa ³ , M.Riska Maulana Effendi ⁴ , Paisal ⁵ , Alia Putri Benari ⁶ , Nadia Dwi Putri ⁷	148
¹⁻⁷ Polytechnic State of Sriwijaya	148
...	149
The Factors Affecting Food Delivery Application Users Shopping Routine Behavior during the Covid-19 Pandemic	
ID: 4013.....	149
Ridho, Sari Lestari Zainal ^{1*} , Sabli, Habsah Binti Haji Mohamad ² , Ibrahim, Kartini Binti Che ³ , Jauhari, Hadi ⁴ , Detmuliati, Alditia ⁵ , Alfitriani ⁶ , Putri, Anggita Prameswari Pracena ⁷	149
¹⁴⁵⁶⁷ Politeknik Negeri Sriwijaya, Palembang, Sumatera Selatan, Indonesia.....	149
²³ Politeknik Mukah, Mukah, Sarawak, Malaysia	149
.....	150
Internal Control System Affects the Quality of Financial Report Information Palembang City Government	
ID: 4053.....	150
Rita Martini ^{1*} , Fildzah Rahmah Satirah ² , Nurhasanah ³ , Kartini binti Che Ibrahim ⁴ , Kartika Rachman Sari ⁵ , Endah Widyastuti ⁶ , Farida Husin ⁷ , Amelia Agustia Riskya Saputri ⁸	150
^{1,2,3,5,6,7,8} Accounting Department, Polytechnic State of Sriwijaya, Palembang 30139, Indonesia.....	150
⁴ Trade Department, Politeknik Mukah, Sarawak, Malaysia	150
GOOD GOVERNANCE AND INTERNAL CONTROL ON THE PREVENTION OF FRAUD IN THE PROCUREMENT OF	
.....	151
GOODS AND SERVICES FOR GOVERNMENT AGENCIES	
ID: 4076.....	151
Evada Dewata ^{1*} , Elfira Hidayanti ² , Yuliana Sari ¹ , Hadi Jauhari ³	151

¹ Accounting Department, State Polytechnic of Sriwijaya Palembang, Indonesia.....	151
² Alumni of the Public Sector Accounting, Study Program of State Polytechnic of Sriwijaya.....	151
³ Business Administration Department, State Polytechnic of Sriwijaya Palembang, Indonesia.....	151

INFLUENCE OF INDEPENDENCE, DUE PROFESSIONAL CARE AND ACCOUNTABILITY ON AUDIT QUALITY ON 152

THE AUDIT BOARD OF THE REPUBLIC OF INDONESIA REPRESENTATIVE PROVINCE OF SOUTH SUMATRA

ID: 4078.....	152
Fipiariny. S ¹ , Nurhayati ²	152
¹⁻² Accounting Study Program, Anika Palembang Polytechnic.....	152

Development of Multi Platform Geographic Information System Assessment of Prospective Bidikmisi Students Using Reuse Driven Software Development Process Method

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ABSTRACT

One form of selection for new student admissions at Polsri that prospective students can choose is PMDK-PN Bidikmisi (Penelusuran Minat dan Bakat Politeknik Negeri). This selection is specifically for prospective students who have achievements in various fields and are economically disadvantaged. The selection stage on this route carried out by Polsri is to assess all the achievement criteria possessed by prospective students. Furthermore, Polsri will verify the data provided by prospective students by visiting their homes. The problem that often arises at this stage is that Polsri does not yet have a map depicting the home addresses of prospective students, making it difficult for lecturers to make visits. In addition, the assessment still uses paper documents so that it is often troublesome for the assessors. In the study, we tried to create a geographic information system for assessing prospective PMDK-PN Bidikmisi students in Polsri to overcome problems during the process of accepting new Polsri students. This geographic information system is in the form of a web application created using a system development method based on reuse. The web application will be built based on the components contained in the CodeIgniter framework library and components created by the developer. The use of these components in web applications results in an efficient, effective system and without changing system functionality.

Keywords: Bidikmisi, Geographic Information System, Reusability.

1. PREFACE

The selection process for new student admissions at Polsri (Politeknik Negeri Sriwijaya) follows the regulations set by the Indonesian government. Initially, the process of accepting new students was carried out by means of a written test before the start of the new school year. The results of the written test will be ranked by value. Then the prospective student who will be accepted is determined based on the value limit and quota in the department chosen by the prospective

student. In subsequent developments, the process of new student admissions is not limited to test selection. In accordance with government regulations, student admissions can go through the PMDK-PN selection. This PMDK-PN selection can be chosen by prospective students who have achievements in academics or other fields such as sports, arts, and so on.

While studying at Polsri, students can get educational assistance in the form of scholarships. Scholarships available at Polsri come from the government, companies, and Polsri alumni. This type of

scholarship also takes many forms, there are scholarships for outstanding students, scholarships for students who are economically disadvantaged, and scholarships for students who are active in student organizations.

One of the admissions routes for new Polsri students is PMDK-PN Bidikmisi. This path is specifically for prospective students who excel and are economically disadvantaged. Achievements that will be assessed are not only limited to the academic field, but other fields such as sports and the arts, while the economically disadvantaged are declared by the authority officials in the prospective student's domicile area. The stages of admission for this pathway are as follows: prospective students register and submit all achievement documents to their schools. Polsri will then assess all of these documents. The results of the assessment will be obtained by a number of prospective students. The next stage is to verify the data and directly assess the prospective student. The method is done by sending the assessor lecturer to visit the address of the prospective student's residence. In this way the assessors can directly assess the prospective student. The results of the assessment from the assessor lecturer will be brought together at the Polsri leadership meeting to determine the graduation of prospective students to become Polsri students.

The selection process for prospective Bidikmisi students in Polsri, the assessment lecturers visited the homes of prospective Bidikmisi students to verify data and directly assess the prospective students. The problems that arose during this process were 1. Polsri did not have a map depicting the addresses of prospective Bidikmisi students. 2. The difficulty of the assessment lecturer to find the shortest route to the prospective student's home address when making a visit. 3. The assessment form for prospective students still uses paper documents so that when visiting prospective students' homes, the assessment lecturer brings many documents in the form of assessment papers.

This research, trying to create a geographic information system for the assessment of prospective Bidikmisi students majoring in Information Management Polsri to assist the selection process for new students majoring in Information Management Polsri through the PMDK-PN Bidikmisi scholarship. The web application on this system will be made in the form of reusable modules. With modules like that, making web applications will be easier and able to adapt to changing needs.

In this research, a geographic information system was used to map the domicile of prospective Bidikmisi students. With this mapping, it will facilitate the visit of the assessor lecturer. Research on mapping an area with a specific purpose has been done by many researchers in the field of computers or geography. [13] utilize

geographic information systems to determine the potential of batik in an area in Yogyakarta. These potential areas are determined based on the ease of obtaining raw materials and the ease of distribution of batik handicrafts. This information system can also be used to analyze climate, structural conditions and soil contours in an area. From the output of the application on the system, it can be seen the feasibility of the area to be used as agricultural land [12].

[9] in his research emphasized the importance of component reuse in software development. By using components, the software created will be more efficient in the use of resources. These stages of software development with reuse are described in detail by [9] and updated by [7]. The two people create models to make it easier for developers to create software. [1] created an on-line aspiration information system using software development with reusability.

2. BASIC THEORY

2.1. Geographic Information System

Geographic information system is a system designed to capture, store, manipulate, analyze, organize, and display geographic data [6]. It can be said that a geographic information system (GIS) or in English Geographical Information System (GIS) is a system that combines cartography, statistical analysis and databases.

2.2. Software Development Based on Reusability

Reuse driven software development process or software development based on reusability is one of the software development processes that is driven by the reusable aspect. This process views the process from two sides, namely customer reuse and producer reuse [9]. Customer reuse is the activity of using reusable components to create new software systems [9]. Producer reuse is the activity of making, procuring or reengineering reusable components [9].

The concept of reuse can be used in various software development methods. So that the software development process becomes reuse driven, it is enough to add customer reuse mini life cycle and producer reuse mini life cycle at each stage of development. Adding a producer reuse mini life cycle to the system life cycle means that the manufacture of reusable components is carried out in the context of a system development project and the project team is also responsible for being a reuse producer. Another way to use the concept of reuse is to separate producer reuse into its own life cycle, which is often referred to as producer reuse life cycle or domain engineering.

2.3. Bidikmisi Scholarship

Achievement Student Education Scholarship, which is abbreviated as Bidikmisi, is a tuition assistance program provided by the Government through the Directorate General of Higher Education, Ministry of Education and Culture in the United Indonesia Cabinet starting in 2010, to students who have adequate academic potential and are economically disadvantaged. Bidikmisi is a program of 100 Working Days of the Minister of National Education launched in 2010. Universities that receive Bidikmisi assistance are universities under the Ministry of Education and Culture. This program has a mission to revive hope for the underprivileged and have adequate academic potential to be able to take education up to the level of higher education.

3. RESEARCH METHODOLOGY

The stages carried out during the research work are shown in Figure 1.

1. The first step in this research is to analyze the needs of the geographic information system for the assessment of prospective Bidikmisi students (SIG Bidikmisi). System requirements analysis is carried out after the problems in the system are clearly formulated. How to conduct a needs analysis, how to conduct a survey on the implementation of the assessment of prospective Bidikmisi students, interviews with the leaders of Polsri and the lecturers involved, and analysis of documents that support the assessment activities of prospective Bidikmisi students. The results obtained from this stage are the specifications of the system to be developed.
2. The second stage of this research is to create geospatial data which will later be used in the development of the Bidikmisi GIS.
 - a. Literature study, conducted by studying the literature that supports the implementation of the research. The literature is related to the concept of geospatial data, the concept of geographic information systems, dimensional modeling, the concept of reusability, reuse driven software development process and other related studies.
 - b. Analysis, determining the required attributes of geospatial data for maps in geographic information systems.
 - c. Design and implementation, determine geospatial data and its attributes that will be used in the geographic information system for the assessment of prospective Bidikmisi Polsri students.
3. Development of the Bidikmisi GIS based on reusability is the third stage in this research. The focus at this stage is the development of web applications that take advantage of geospatial data that has been created previously. The web application

is designed using UML (unified modeling language) notation. The CodeIgniter framework is used in working on the Bidikmisi GIS web application. In web application development there are two types of components that will be used. The first is a component that has been provided by the CodeIgniter framework and the second is a component that is made by the developer himself. Components made by developers are reusable and based on the system engineering domain.

4. The fourth stage in this research is testing the components of the Bidikmisi GIS web application. The components used are derived from the CodeIgniter framework and the components created are tested for their usefulness. The testing method is done by creating a page form functionality test scenario that utilizes these components.
5. Evaluation of the overall system is carried out at the final stage of this research. Evaluation is done by implementing the Bidikmisi GIS in the user's environment. This implementation will get feedback from the use of this geographic information system. The parameters to be measured are ease of use and data accuracy.

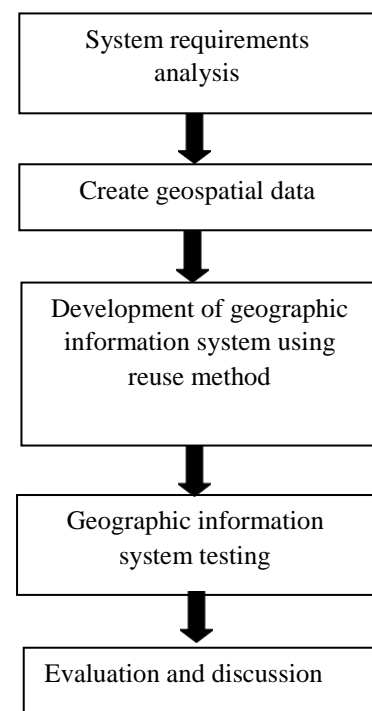


Figure 1. Research Methodology

4. RESULT AND DISCUSSION

4.1. Use Case Diagram

The use case diagram shown in Figure 2 illustrates the relationship between the actors involved and the Bidikmisi GIS. There are four actors who interact with

the Bidikmisi GIS, namely: admin who is responsible for the whole system, lecturers who serve as assessors, prospective students act as actors who are assessed by lecturers, and leaders who will determine the graduation of prospective students. From the use case diagram, it can be seen that the use cases that can be carried out by actors when using Bidikmisi GIS. Each actor has a use case depending on his role.

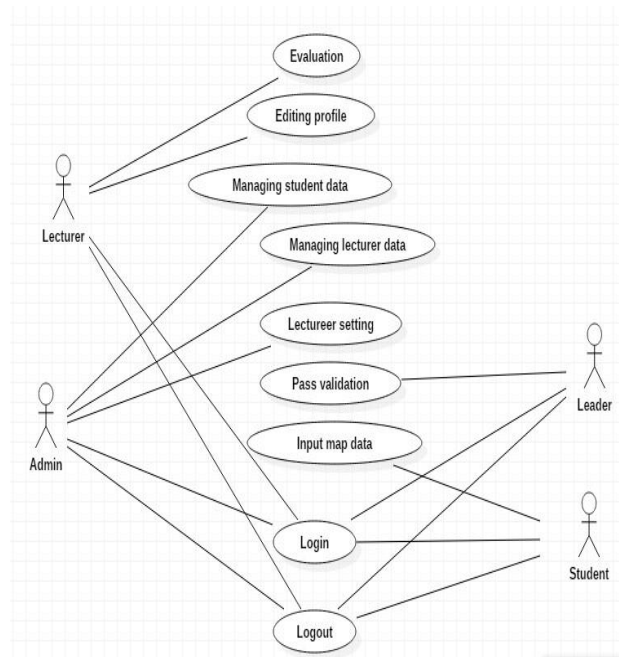


Figure 2. Bidikmisi GIS Use Case Diagram

4.2. Geographic Information System Components

There are three types of components that will be used in the Bidikmisi GIS web application, namely: leaflet components, components derived from the CodeIgniter framework, and components made by developers themselves.

1. Leaflet components

The important output data in the Bidikmisi GIS is a map of the domicile location of prospective Bidikmisi students. To display map data in the geographic information system, a third party component is used, namely leaflets. The leaflet component is a component created with the Javascript programming language. The advantage of this leaflet component is that it can be used in computer applications and is responsive when used on mobile devices such as tablets and smartphones. The map displayed is also very friendly, making it easier for users to use the map. The use of components in the Bidikmisi GIS is quite simple, the developer only writes down the syntax to call the leaflet component of the part of the program that needs it. When the web application is

used automatically the web application will be connected to the leaflet vendor.

2. CodeIgniter framework components

The second component that will be used is a component that comes from the CodeIgniter framework. The CodeIgniter framework provides a large number of component libraries that make it easy for developers to build applications. In making the Bidikmisi GIS web application, developers use a lot of components for web application interface pages and data processing in the database.

3. Components made by developers

Not all the components needed for developing a geographic information system web application for the assessment of prospective Bidikmisi students are available in the CodeIgniter framework. There are several components that must be made by the developer himself. There are two components made by the developer themselves, namely the login and dashboard interface components from the user and the helper component to maintain security from third parties who want to illegally enter the Bidikmisi GIS. Interface components are created using HTML tags which are separated into several files such as header.html, footer.html, and sidebar.html. The security helper component is created using the PHP programming language. To use the component, just call through the CodeIgniter framework helper, it will automatically be used by the program in the Bidikmisi GIS web application.

4.3. Geographic Information System Web Application

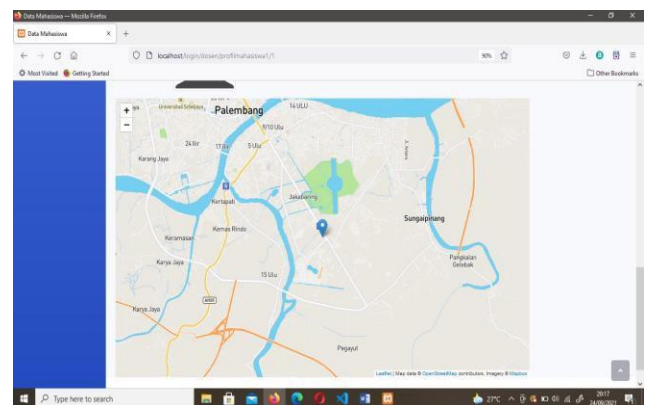


Figure 3. Domicile map of prospective Bidikmisi students

The map display in the Bidikmisi GIS web application is shown in figure 3. From the map displayed there is a pin indicating the domicile of prospective Bidikmisi students. This map makes it

easier for assessors to visit prospective students' homes. The resulting map is simple to make it easier for lecturers to carry out their duties.

Figure 4. Bidikmisi Student Candidate Assessment Form

Figure 4 shows the assessment form for prospective Bidikmisi students during interviews with lecturers. This simple form displays a list of questions that will be asked by the lecturer to prospective Bidikmisi students. During the interview the lecturer asks questions based on the form and chooses the answers provided on the form. The Bidikmisi GIS web application will automatically calculate the total score based on the answers of prospective Bidikmisi students.

4.4. Result Evaluation

The completed Bidikmisi GIS web application is implemented in the user's environment. From the implementation results, it was obtained from users that the GIS web application was easy to use and quite helpful in the selection process for Bidikmisi student admissions. Friendly page views and a simple user process are the most important values of user ratings. The use of the Bidikmisi GIS web application can be used on various hardware devices such as PCs, laptops, and responsiveness to mobile devices such as tablets and smartphones is a separate assessment for users. The operation of the Bidikmisi GIS web application is efficient and does not require a long time due to the use of the components used by the web application. Components work when needed by the web application, whereas if they are not needed then the components do not work.

5. CONCLUSION

The conclusions obtained from this research are as follows:

1. The geospatial data contained in the geographic information system helps the assessor lecturer when

visiting the residence of prospective Bidikmisi students.

2. In this study, there are three types of components used in the development of a geographic information system for the assessment of prospective Bidikmisi students. The first component is leaflet component show the map home of propective student. The second component used is a library in the CodeIgniter Framework and the third component is a component created by the developer team.
3. The components used and made are reusable so as to summarize the program code. The Bidikmisi GIS web application in the system only calls the components that are needed when the component is used when the web application is working.
4. The functionality of the geographic information system web application does not change when utilizing these components. Web application performance becomes more efficient because not too much program code is written.
5. Based on the evaluation results from users of the Bidikmisi GIS web application, the resulting Bidikmisi GIS is easy to use by users.

6. RECOMMENDATION

The geographical information system web application for the assessment of prospective Bidikmisi students needs to be added with features. One feature that is very helpful for lecturers when making visits is to determine the shortest route for the position of the assessor lecturer to the residence of prospective Bidikmisi students and the time it takes to get there. It is hoped that further research can add these features.

REFERENCES

- [1] Ali Fikri, Ismiarti, Fajar Pradana. "Pengembangan Sistem Informasi Aspirasi Online Berbasis Web Menggunakan Pemodelan Reuse-Oriented Development (Studi Kasus : DPM Universitas Brawijaya)". Jurnal Pembangunan Teknologi Informasi dan Ilmu Komputer. Vol. 3No.2, hlm. 1174-1183, e-ISSN : 248-964x. 2019.
- [2] Coad, P. "Object models: Strategies, patterns and applications". Upper Saddle River, NJ: Pentice Hall. 1997.
- [3] Galin, Daniel. "Software Quality Assurance from Theory to Implementation". Pearson Addison Wesley. 2004.
- [4] Gamma, Erich. Helm, Richard. Johnson, Ralph. Vlissides, John. "Design Patterns : Elements of

- Reusable Object-Oriented Software*". Addison-Wesley Professional Computing Series. 1997.
- [5] Indah Permata Sari. "*Gaya Hidup Mahasiswa Penerima Beasiswa Bidikmisi*". Skripsi Universitas Negeri Jakarta. 2012.
- [6] Irwansyah, Edy." *Sistem informasi geografis: prinsip dasar dan pengembangan aplikasi*". Yogyakarta: Digibook. 2013.
- [7] Jasmani & Santosa, A. A. "*Implementasi Teknologi Google Maps Api untuk Pembuatan Sistem Informasi Database bangunan Gedung Dan Kantor Negara*". Jurnal Spectra, 11(12), pp. 15-37. 2017.
- [8] John E. Harmon, Steven J. Anderson. "*Design and Implementation of Geographic Information Systems*". John Wiley and Sons: New Jersey. 2003.
- [9] McClure, Karma. "*Software Reuse Techniques: Adding Reuse to the System Development Process*". Prentice Hall PTR. 1997.
- [10] Pedoman Penyelenggaraan Bantuan Biaya Pendidikan Bidikmisi. Jakarta: Dirjen Dikti. 2014.
- [11] Pressman, Roger. "*Software Engineering Fifth Edition*". John Wiley & Sons. 2010
- [12] Rika Harini, Bowo Susilo and Emily Nurjani. "*Geographic Information System-Based Spatial Analysis of Agricultural Land Suitability in Yogyakarta*". Indonesian Journal of Geography. Vol. 47, No. 2. ISSN 0024- 9521. 2015.
- [13] Taryadi, Satriedi Wahyu Binabar, Dicke JSH. Siregar. "*Geographic Information System for Mapping the Potency of Batik Industry Centre*". Journal of Information Systems Engineering and Business Intelligence. Vol 5 No.1. 2019.



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