



CONFERENCE PROGRAMS AND ABSTRACT

**The 3rd FIRST 2019 INTERNATIONAL CONFERENCE
FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY
OCTOBER 09-10, 2019
*Palembang, Province of South Sumatera
Indonesia***

Organized by :



Collaborate With :



PREFACE

The 3rd FIRST 2019 (Forum in Research, Science, and Technology) International Conference was initiated and organized by State Polytechnic of Sriwijaya in collaboration with Management and Science, University (MSU), Malaysia and National Chin-Yi University of Technology, Taiwan. The theme of the conference was “Integration of Advanced Technology to Enhance Social Welfare”. The 3rd FIRST 2019 International Conference facilitated the participants from all over the world to meet face to face to open chances in establishing connection and collaboration among them. It was not only for the researchers in academics, but also in industries and governments. This conference became an effective media to link the researchers from many parts of the world conference, for exchanging, sharing, following up and discussing the results of the latest research, industry’s needs, and government regulatory policies. The 3rd FIRST 2019 International Conference became worthwhile platform for researchers to present their finding in the areas on multidisciplinary of Engineering and Science (Track 1), Computer Science and ICT (Track 2), and Social Science (Track 3). It has also provided an opportunity for the professionals and researchers to learn and share about the latest development and research in those 3 tracks.

The 3rd FIRST 2019 International Conference attracted so many authors not only from Indonesia but also from other countries, such as Japan, Taiwan, and Malaysia. There were 180 papers were accepted in the 3rd FIRST 2019 International Conference, including 89 papers for Track 1 (Engineering and Science), 46 papers for Track 2 (Computer Science and ICT), and 45 papers for Track 3 (Social Science). In The 3rd FIRST 2019 International Conference, there were 4 keynote speakers and 2 invited speakers. As the keynote speakers, there were Prof. Yasushi Kiyoki, Ph. D from KEIO University, Japan, Prof. Nurul Taufiqu Rochman, M. Eng, Ph. D, From LIPI, Indonesia, Prof. Tjiptohadi Sawarjuwono, M. Ec., Ph. D., Ak, from Universitas Airlangga, Indonesia, and Prof. Win-Jet Luo, from National Chin-Yi University of Technology, Taiwan. As the invited speakers, there were Dr. R. Wisnu Nurcahyo, DVM from Universitas Gadjah Mada, Indonesia, and Assoc. Prof. Dr. Intan Zaurah binti Mat Darus from Universiti Teknologi, Malaysia. The 3rd FIRST 2019 International Conference committee would like to say thank you very much for all the participants and their respected institutions that have supported for the success of the 3rd FIRST 2019 International Conference, and also for all of the guess and sponsors of the 3rd FIRST 2019 International Conference.

General chair

Dr. Rita Martini, S.E., M.Si., Ak.

Secretary of Research Unit of State Polytechnic of Sriwijaya, Indonesia

Program chair

Dr. Desloechal Djumrianti

State Polytechnic of Sriwijaya, Indonesia

Dr. Ade Silvia Handayani

State Polytechnic of Sriwijaya, Indonesia

Organizing committee

Prof. Erry Yulian Triblas Adesta

International Islamic University, Malaysia

Prof. Win-jet Luo, Ph.D.

National Chin-Yi University of Technology, Taiwan

Prof. Yasushi Kiyoki

Keio University, Japan

Prof. Eddy Yusuf, Ph.D

Management Science University, Malaysia

Prof. Dr. Werner Rammense

Cologne University, Germany

Assoc. Prof. Dr. Augustus E. Osseo-Asare

University of Sunderland, United Kingdom

Technical committee

Prof. Muhammad Nizam, Ph.D

Universitas Sebelas Maret, Indonesia

Prof. Dr. Mohammad Yeakub Ali

International Islamic University Malaysia

Dr.drh R. Wisnu Nurcahyo, DVM

Universitas Gadjah Mada, Indonesia

Dr. Untung Santoso, M.S

Universitas Muhammadiyah Malang, Indonesia

Assoc. Prof. Ahmad Hoirul Basori

King Abdulaziz University, Saudi Arabia

Prof. Dr. Ir. Siti Nurmaini

Universitas Sriwijaya, Indonesia

Prof. Aldes Lesbani S.Si,M.Si,Ph.D

Universitas Sriwijaya, Indonesia

Yu-Lieh Wu, Ph.D.

National Chin-Yi University of Technology, Taiwan

Dr. Zulhadi Zakaria

Politeknik Seberang Perai, Malaysia

Dr. Ing. Ahmad Taqwa, M.T

State Polytechnic of Sriwijaya, Indonesia

Dr. RD. Kusumanto, MM

State Polytechnic of Sriwijaya, Indonesia

Irsyadi Yani, ST., M.Eng. PhD

Universitas Sriwijaya, Indonesia

Dr. Yuli Yetri, M.Si
Politeknik Negeri Padang
Dr. Eng. Tresna Dewi, M.Eng.
State Polytechnic of Sriwijaya, Indonesia
Dr.Ir.Rusdianasari, M.Si,
State Polytechnic of Sriwijaya, Indonesia
Dr. Yohandri Bow, M.Si
State Polytechnic of Sriwijaya, Indonesia
Ir. Indra Chandra Setiawan, M.T.
PT. Toyota Motor Manufacturing, Indonesia

Editor

Deris Stiawan, Ph.D
Universitas Sriwijaya, Indonesia
Dr. Nyayu Latifah Husni
State Polytechnic of Sriwijaya, Indonesia
Dr. Rita Martini, S.E., M.Si., Ak.
State Polytechnic of Sriwijaya, Indonesia
Dr. Ade Silvia Handayani
State Polytechnic of Sriwijaya, Indonesia
Dr. Marieska Lupikawati
State Polytechnic of Sriwijaya, Indonesia

Authors

Affandi, Muhammad Irfan
Marketing Efficiency of Organic Rice in Lampung Province

Afrizawati
The Effect of Organization Climate on Performance with Job Satisfaction as an Intervening Variable

Akbar, Muhamad
E-Government Policy, Leadership Commitment, Apparatus Resources Development, and Their Implications on Public Service Performance

Aladin
Industrial Clusterization to Improve the Competitiveness of Small and Medium Industries in the City of Palembang

Alhadi, Esya
Impact of Customer Orientation and Quality of Service on Trust and Customer Loyalty

Alhamdari, Lailita
Analysis Method Economic Value Added of Cosmetics Companies Listed on Indonesia Stock Exchange

Amalia, Rizki Fitri
Political Connection, Profitability, and Capital Intensity Against Tax Avoidance in Coal Companies on the Indonesia Stock Exchange

Amran, Ali
Relationship Between GPA, Length of Study, and Competency with the Length of Time to Get a Job

- Amri, Darul
Determinant of Development Strategies and Leadership Styles on Organizational Commitment and Their Implications for MSMEs Performance in Palembang
- Andriani, Titi
Impact of Customer Orientation and Quality of Service on Trust and Customer Loyalty
- Anshari, Muhammad
Human Resource Role and Online Strategy
- Aprianti, Siska
The Effect of Capital Readiness and E-Commerce Utilization on the Competitiveness of Micro, Small, and Medium Enterprises Woven, Palembang
- Ardiani, Susi
The Effect of Hospital Image and Service Quality on Customer Loyalty Through Customer Satisfaction
- Arifin, Kiagus Zainal
Determinants of Village Financial Management Accountability
- Armaini, Rosy
The Impact of Village Fund Program Implementation Toward Society Welfare in Indonesia
- Aryani, Yuli Antina
Industrial Clusterization to Improve the Competitiveness of Small and Medium Industries in the City of Palembang
- Badri, Markoni
The Environmental Compliance Management of Palm Oil Plantation in Ogan Komering Ilir Regency, Sumatera Selatan, Indonesia
- Bustan, Jusmawi
Analysis Method Economic Value Added of Cosmetics Companies Listed on Indonesia Stock Exchange
- Bustan, Jusmawi
The Effect of Culinary Knowledge and Culinary Experience on Local Culinary Attractiveness
- Carlos, RS
Criminal Law Policy on the Crime of Abuse to the Orang Rimba in the Bukit Duabelas National Park
- Choiruddin
Determinants of Village Financial Management Accountability
- Darfin, Deri
The Public Service Quality of Library Service at the Library Unit Polytechnic State of Sriwijaya
- Darlies, Meiyi
Criminal Law Policy on the Crime of Abuse to the Orang Rimba in the Bukit Duabelas National Park
- Darmaliana
The Development of Teaching Material Speaking 2 Based on Communicative Approach
- Desiani, Anita
Relationship Between GPA, Length of Study, and Competency with the Length of Time to Get a Job

- Dewata, Evada
Industrial Clusterization to Improve the Competitiveness of Small and Medium Industries in the City of Palembang
- Divianto
The Effect of Organization Climate on Performance with Job Satisfaction as an Intervening Variable
- Djumrianti, Desloehal
Online Transportation Technology and Women's Driver Communication Skills
- Dwitayanti, Yevi
The Impact of Village Fund Program Implementation Toward Society Welfare in Indonesia
- Effendi, Ridwan
The Public Service Quality of Library Service at the Library Unit Polytechnic State of Sriwijaya
- Elisa
Evaluation of Sales Price Within Calculation Cost of Good Production SMEs Pempek Ilir Barat I and Bukit Kecil District, Palembang
- Ermatita
The Clustering of Paddy Fields Using Machine Learning Algorithms in the Province of South Sumatera
- Erwin, Muhamad
Criminal Law Policy on the Crime of Abuse to the Orang Rimba in the Bukit Duabelas National Park
- Evawati, Nian Masna
Language Experience Approach in Teaching Reading Comprehension to the Engineering Students
- Fadila, Dewi
Impact of Learning, Socialization, and Financial Lifestyle of Students' Intention to Invest in Capital Market
- Faridah
The Effect of Taxpayer Awareness and Tax Sanctions on Compliance in Paying Land and Building Taxes
- Firdaus, Yusnizal
The Environmental Compliance Management of Palm Oil Plantation in Ogan Komering Ilir Regency, Sumatera Selatan, Indonesia
- Fithri, Eka Jumarni
Determinants of the Quality Regional Financial Statement
- Frimansyah
Determinant of Development Strategies and Leadership Styles on Organizational Commitment and Their Implications for MSMEs Performance in Palembang
- Gustiani, Sri
The Effectiveness of Blended Learning Approach on Essay Writing Subject
- Hamid, Abd.
The Effect of Culinary Knowledge and Culinary Experience on Local Culinary Attractiveness
- Handayani, Sri
Marketing Efficiency of Organic Rice in Lampung Province
- Handayani, Sri
Comparison Analysis of Added Value of Organic Rice and Inorganic Rice

- Hanifati
Online Transportation Technology and Women's Driver Communication Skills
- Hardiyansyah, Hardiyansyah
E-Government Policy, Leadership Commitment, Apparatus Resources Development, and Their Implications on Public Service Performance
- Hartati, Sukmini
Dimension of Village Expenditure in Development Sector
- Hartaty, Sri
Determinants of the Quality Regional Financial Statement
- Herawati, Yusleli
Evaluation of Sales Price Within Calculation Cost of Good Production SMEs Pempek Ilir Barat I and Bukit Kecil District, Palembang
- Herman
The Effect of Directed Reading—Thinking Activity on Students' Critical Thinking Abilities
- Husori, Al
The Environmental Compliance Management of Palm Oil Plantation in Ogan Komering Ilir Regency, Sumatera Selatan, Indonesia
- Indriasari, Desi
Determinants of Village Financial Management Accountability
- Irmeilyana
Relationship Between GPA, Length of Study, and Competency with the Length of Time to Get a Job
- Jauhari, Hadi
Human Resource Role and Online Strategy
- Koesharijadi, Koesharijadi
E-Government Policy, Leadership Commitment, Apparatus Resources Development, and Their Implications on Public Service Performance
- Koryati
Language Experience Approach in Teaching Reading Comprehension to the Engineering Students
- Kusmartini, Sri Endah
The Development of Teaching Material Speaking 2 Based on Communicative Approach
- Lisnini
Model of Empowerment as Strategies for Women SMEs Entrepreneurs Competitiveness in Palembang
- Lupikawaty, Marieska
Analysis Method Economic Value Added of Cosmetics Companies Listed on Indonesia Stock Exchange
- Lupikawaty, Marieska
Evaluation of Sales Price Within Calculation Cost of Good Production SMEs Pempek Ilir Barat I and Bukit Kecil District, Palembang
- Mahendrati, Hermina Agustina
Individual Readiness for Change and Affective Commitment to Change: The Mediation Effect of Technology Readiness on Public Sector
- Mandiangan, Pridson
Online Transportation Technology and Women's Driver Communication Skills

- Mangundjaya, Wustari
Testing the Role of Charismatic Leadership, Psychological Climate, and Organizational Citizenship Behavior on Resilience
- Mangundjaya, Wustari L.
Leader–Member Exchange and Affective Commitment to Change: Mediating Role of Change Self-Efficacy
- Mangundjaya, Wustari
Testing the Impact of Organizational Justice on Affective Commitment to Change with Work Engagement as Mediator
- Mangundjaya, Wustari
Individual Readiness for Change and Affective Commitment to Change: The Mediation Effect of Technology Readiness on Public Sector
- Mangundjaya, Wustari L.
Testing Mediation of Psychological Empowerment, Work Engagement to Affective Commitment to Change
- Maretha, Fetty
Model of Empowerment as Strategies for Women SMEs Entrepreneurs Competitiveness in Palembang
- Maria
The Impact of Village Fund Program Implementation Toward Society Welfare in Indonesia
- Mariskha, Z
Impact of Learning, Socialization, and Financial Lifestyle of Students' Intention to Invest in Capital Market
- Martini, Rita
Dimension of Village Expenditure in Development Sector
- Marwa, Taufiq
Exploring Linkage Among Experiential Value, Image of Destination, and Intention to Revisit in Nature Tourism
- Masnila, Nelly
The Effect of Taxpayer Awareness and Tax Sanctions on Compliance in Paying Land and Building Taxes
- Maulana, Riska
Impact of Learning, Socialization, and Financial Lifestyle of Students' Intention to Invest in Capital Market
- Miskiyah, Neneng
Human Resource Role and Online Strategy
- Mubarok, Muhammad Husni
The Effect of Taxpayer Awareness and Tax Sanctions on Compliance in Paying Land and Building Taxes
- Nadjmuddin, Muhammad
The Effect of Directed Reading—Thinking Activity on Students' Critical Thinking Abilities
- Natoen, Ardiyan
The Influence of Commitment on State Civil Apparatus in the Governor Office of South Sumatera
- Nirmagustina, Dwi Eva
Comparison Analysis of Added Value of Organic Rice and Inorganic Rice

Nurhasanah

The Impact of Village Fund Program Implementation Toward Society Welfare in Indonesia

Oktarian, Rido Prawira

Relationship Between GPA, Length of Study, and Competency with the Length of Time to Get a Job

Oktarida, Anggeraini

Determinants of the Quality Regional Financial Statement

Paisal

The Effect of Organization Climate on Performance with Job Satisfaction as an Intervening Variable

Pangestu, Bramntyo Muhamad

The Effect of Capital Readiness and E-Commerce Utilization on the Competitiveness of Micro, Small, and Medium Enterprises Woven, Palembang

Pebrianti, Yulia

Model of Empowerment as Strategies for Women SMEs Entrepreneurs Competitiveness in Palembang

Periansya

The Influence of Commitment on State Civil Apparatus in the Governor Office of South Sumatera

Purwati

Evaluation of Sales Price Within Calculation Cost of Good Production SMEs Pempek Ilir Barat I and Bukit Kecil District, Palembang

Puspitasari, Dwi Andriani

Leader-Member Exchange and Affective Commitment to Change: Mediating Role of Change Self-Efficacy

Rahma, Munaja

Students' Perception of English Blended-Learning in State Polytechnic of Sriwijaya

Riama, Lambok Vera

Determinants of the Quality Regional Financial Statement

Ridho, Sari Lestari Zainal

Human Resource Role and Online Strategy

Ridhwan, Moehammad

Students' Perception of English Blended-Learning in State Polytechnic of Sriwijaya

Rini

Model of Empowerment as Strategies for Women SMEs Entrepreneurs Competitiveness in Palembang

Risa

The Development of Teaching Material Speaking 2 Based on Communicative Approach

Risnawati

The Development of Teaching Material Speaking 2 Based on Communicative Approach

Robinson

The Public Service Quality of Library Service at the Library Unit Polytechnic State of Sriwijaya

- Rusnadi, Irawan
Criminal Law Policy on the Crime of Abuse to the Orang Rimba in the Bukit Duabelas National Park
- Sandrayati
The Effect of Hospital Image and Service Quality on Customer Loyalty Through Customer Satisfaction
- Sanmorino, Ahmad
The Clustering of Paddy Fields Using Machine Learning Algorithms in the Province of South Sumatera
- Sari, Evi Agustina
The Effectiveness of Blended Learning Approach on Essay Writing Subject
- Sari, Yuliana
Industrial Clusterization to Improve the Competitiveness of Small and Medium Industries in the City of Palembang
- Sari, Kartika Rachma
Determinants of Village Financial Management Accountability
- Sarikadarwati
The Effect of Hospital Image and Service Quality on Customer Loyalty Through Customer Satisfaction
- Sastrawinata, Hendra
Impact of Learning, Socialization, and Financial Lifestyle of Students' Intention to Invest in Capital Market
- Satriawan, Indra
The Influence of Commitment on State Civil Apparatus in the Governor Office of South Sumatera
- Seprianto, Dicky
Criminal Law Policy on the Crime of Abuse to the Orang Rimba in the Bukit Duabelas National Park
- Setiawan, Heri
The Effect of Culinary Knowledge and Culinary Experience on Local Culinary Attractiveness
- Setiawan, Heri
Exploring Linkage Among Experiential Value, Image of Destination, and Intention to Revisit in Nature Tourism
- Shihab, Muchsin Sagaf
Exploring Linkage Among Experiential Value, Image of Destination, and Intention to Revisit in Nature Tourism
- Simanjuntak, Tiur
The Effectiveness of Blended Learning Approach on Essay Writing Subject
- Sopian, A.R
The Influence of Commitment on State Civil Apparatus in the Governor Office of South Sumatera
- Sulaiman
The Effect of Capital Readiness and E-Commerce Utilization on the Competitiveness of Micro, Small, and Medium Enterprises Woven, Palembang
- Sunani
The Effect of Directed Reading—Thinking Activity on Students' Critical Thinking Abilities

- Suryati
The Clustering of Paddy Fields Using Machine Learning Algorithms in the Province of South Sumatera
- Susilo
Testing Mediation of Psychological Empowerment, Work Engagement to Affective Commitment to Change
- Thoyib, M.
Determinant of Development Strategies and Leadership Styles on Organizational Commitment and Their Implications for MSMEs Performance in Palembang
- Tompunu, Alan Novi
Criminal Law Policy on the Crime of Abuse to the Orang Rimba in the Bukit Duabelas National Park
- Ummasyroh
The Effect of Culinary Knowledge and Culinary Experience on Local Culinary Attractiveness
- Wahab, Zakaria
Exploring Linkage Among Experiential Value, Image of Destination, and Intention to Revisit in Nature Tourism
- Wahyudi, Riza
Determinant of Development Strategies and Leadership Styles on Organizational Commitment and Their Implications for MSMEs Performance in Palembang
- Widyastuti, Endah
Dimension of Village Expenditure in Development Sector
- Windarti, Gst Ayu Oka
Impact of Customer Orientation and Quality of Service on Trust and Customer Loyalty
- Yahya
The Effect of Organization Climate on Performance with Job Satisfaction as an Intervening Variable
- Yeny, Eli
The Effect of Directed Reading—Thinking Activity on Students' Critical Thinking Abilities
- Yulina, Bainil
The Effect of Capital Readiness and E-Commerce Utilization on the Competitiveness of Micro, Small, and Medium Enterprises Woven, Palembang
- Yulsiati, Henny
The Effect of Hospital Image and Service Quality on Customer Loyalty Through Customer Satisfaction
- Yurnalis
Testing the Impact of Organizational Justice on Affective Commitment to Change with Work Engagement as Mediator
- Yusri
The Effectiveness of Blended Learning Approach on Essay Writing Subject
- Yusuf, M.
The Environmental Compliance Management of Palm Oil Plantation in Ogan Komering Ilir Regency, Sumatera Selatan, Indonesia
- Zahara, Elvia
Impact of Customer Orientation and Quality of Service on Trust and Customer Loyalty

Zakaria

Students' Perception of English Blended-Learning in State Polytechnic of Sriwijaya

Zamheri, Ahmad

Criminal Law Policy on the Crime of Abuse to the Orang Rimba in the Bukit Duabelas National Park

Zulkarnaini

The Public Service Quality of Library Service at the Library Unit Polytechnic State of Sriwijaya

Zulkifli

Language Experience Approach in Teaching Reading Comprehension to the Engineering Students

Zulkifli, Zulkifli

Dimension of Village Expenditure in Development Sector



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Srijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



TABLE OF CONTENTS

TRACK 1.....	1
ELECTRICAL ENGINEERING.....	1
A GLOBAL KNOWLEDGE SHARING AND SEMANTIC COMPUTING SYSTEM WITH 5-DIMENSIONAL WORLD-MAPFOR NATURAL AND SOCIAL ENVIRONMENT-ANALYSIS AND VISUALIZATION	1
5G Channel Model for 28 GHZ Frequency in Palembang	2
B Alfaresi , Z Nawawi , R F Malik, K Anwar.....	2
Wireless Sensor Network Data Communication and Information System to Regulate Water Volume and Turbine Rotation	3
Suzan Zefi ¹⁾ , Eka Susanti ²⁾ , R.A Halimahtussa'diyah ³⁾ , Sholihin ⁴⁾	3
Tomato Harvesting Arm Robot Manipulator; a Pilot Project.....	4
Yurni Oktarina ¹ ,Tresna Dewi ¹ , Pola Risma ¹ , and Muhammad Nawawi ¹	4
Performance Evaluation Solar Charge Controller on Solar Power System Home-Based SPV Amorphous 80 Watt-Peak.....	5
Armin Sofijan ¹ , Zainuddin Nawawi ² , Bhakti Yudho Suprpto ³ , Riman Sipahutar ⁴ , Irwin Bizzy ⁵	5
The Implementation of YateBTS Based GSM Using Raspberry PI.....	6
Sopian Soim ¹⁾ , Suroso ²⁾ , Ade Silvia Handayani ³⁾ , Ahmad Taqwa ⁴⁾ , Nur Shadrina ⁵⁾	6
Optimization of Own Electricity Usage with Electricity Supply from Solar Cells at Darajat Geothermal Power Plant.....	7
Brendy Chandra Supian Atmodjo ¹ and Rinaldy Dalimi ¹	7
Ultrasonic Sensor Application as a Performance Enhancement of Robot Two Wheels.....	8
Yeni Irdayanti ⁽¹⁾ , Rd. Kusumanto ⁽²⁾ , Masayu Anisah ⁽³⁾ , Niksen Alfarizal ⁽⁴⁾ , Zarmariesyah Erman ⁽⁵⁾ ...	8
Operation 3 Phase Induction Motor 1 KW Star Delta System Using HP (Smart Phone).....	9
Nofiansah ¹ , M. Noer ² , Nurhaida ³ , M. Hafidz Aulia ⁴	9
PLC Omron CJ1M CPU-21 Control Modification for Drill Oil Hole Machine in an Automotive Company	10



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Sriwijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Lin Prasetyani 1, Bayu Ramadhan1 , Tresna Dewi2 , William Sarfat1	10
Characteristics of Battery Use in Electric Car.....	11
Yessi Marniati*, Andri Suyadi, Herman Yani, Sutan Marsus**	11
Learning Module of Analog Electronics Practice	12
Sabilal Rasyad, Evelina, Amperawan, Dewi Permata Sari, Nyayu Latifah Husni.....	12
DIFFERENT METRIC DISTANCES ON THE K-MEANS METHOD IN BUILDING A CANS WASTE CLASSIFICATION SYSTEM USING THE CMYK COLOR MODEL	13
Implementation of Facial Feature Extraction Using Viola-Jones Method for Mobile Robot System ...	14
Ahmad Zarkasi ^{1,2} , Siti Nurmaini, Deris Setiawan, Ahmad Kuswandi, Sri Desy Siswanti.....	14
Effect of Load on BLCD Motor.....	15
Rumiasih, Carlos R. Sitompul, Anton Firmansyah, Indah Susanti	15
Implementation of DSK TMS320C6416T Module in Designed of Sound Detection	16
D A Pratama, N L Husni, E Prihatini, S Muslimin	16
Automatic Cooling of a PV System to Overcome Overheated PV Surface in Palembang.....	17
Ahmad Taqwa ^{1,2} , Tresna Dewi ^{1,2} , RD. Kusumanto ^{1,2} , Carlos R Sitompul ^{1,2} , Rusdianasari ¹	17
Analysis of Performance Test and Consumption of BLDC 350 W Motor Power to Mechanical Vibration with Variation of Speed and Load Variation	18
Hairul, Markori, Indrawasih dan Sudirman Yahya	18
The Influence of Change of an Angle of Illuminance on Solar Power Generating Capacity 30 Watts in Laboratory of Electrical Engineering Polytechnic of Sriwijaya.....	19
Zainuddin Idris, M. Yunus, Siswandi, Bambang Guntoro	19
The Effect of Drying Airflow Rate on H2O MASS Evaporated for Banana Chips Drying Using Photovoltaic Solar Panel	20
Yohandri Bow ¹ , Adi Syakdani ² , Muhammad Taufik ² , Rusdianasari ³	20
Development and Feasibility Analysis of Floating Solar Panel Application in Palembang, South Sumatra.....	21
Benny Junianto ¹ , Tresna Dewi ² , Carlos Sitompul ²	21
Effects of Grid Frequency Drop on The Dynamic Performance of Full Converter Wind Turbine Generator.....	22
A. M. Shiddiq Yunus ¹ ,Makmur Saini ² , Sri Suwasti ¹ , dan Purwito Purwito ³	22



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Srijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Modified Design for Water Metering System.....	23
Nyayu Latifah Husni ¹ , Dampito ² , Abdurrahman ³ , Evelina ⁴ , ade Silvia Handayani ⁵ , Sabilal Rasyad ⁶ , Adella Rialita ⁷¹⁻⁷ Electrical Department, Politeknik Negeri Sriwijaya	
Implementation of Fuzzy Logic Type-2 On Mobile Robot Navigation System.....	24
Ade Silvia Handayani, Jefri Alkausar, Sarjana Sarjana, Nyayu Latifah Husni, Siti Nurmaini, Irsyadi Yani.....	
INTELLIGENT CONTROLLER FOR FLEXIBLE ROBOT ARM	25
The Analysis of Wear on Artificial HIP Joint with Dimple on Femoral Surface	26
Hasan Basri ^{1,*} , A. Syahrom ^{2,3} , Amir Putra Md Saad ² , A. T. Prakoso ¹ , D. Wicaksono ¹ , M. I. Amarullah ¹ , Tri Satya Ramadhoni ¹	
Optimal Design of Plasticizing Screw Using Artificial Intelligent Approach.....	27
Fatahul Arifin ^{1, 2(*)} , Min-Wen Wang ¹ , Jhen-Wei Kuo ³ , Tzong-Horng Dzw ⁴	
Mechanical Degradation Model of Porous FE Scaffold: Simulation Approach.....	28
Akbar Teguh Prakoso ¹ , Ardiyansyah Syahrom ^{2,3} , Amir Putra Md Saad ^{2,3} , Abdul Hadi Abdul Wahab ⁴ , M. A. Sulong ^{2,3} , Achmad Rendiko Ichsan ¹ , Apreka Diansyah ¹ , Risky Utama Putra ¹ , Muhammad Imam Ammarullah ¹ , Hasan Basri ^{1*}	
Scoopy Blade for Low Current River Waterwheel Supporting The Energy Needs in The Rural Areas of Indonesia.....	29
Darmawi ¹ , Riman Sipahutar ² , Irwin Bizzy ³	
SELT Design as a source of renewable electricity using the Flywheel Generator and Photodiode Sensor	30
Indra Maulana, Dicky Seprianto, Yossy Yudhianto, Muhammad Najib, Muhamad Azwar.....	
Analysis of Upgrading Process Of South Sumatera Low Rank Coal	31
Riman Sipahutar ¹ , Diah Kusuma Pratiwi ¹ , Darmawi Bayin ¹ , Irwin Bizzy ¹ , Baiti Hidayati ^{1,2}	
The Effect of Parameters on The Process of Making Objects With Rapid Prototyping Digital Light Processing Technology on The Bending Stress	32
Romli ¹ , D Seprianto ¹ , DP Putra ¹ , M Rasid ¹ and A. Zamheri ¹	
The Effect of Rectangular Parallel Key Manufacturing Process Parameters Made With Stereolithography DLP 3D Printer Technology against Impact Strength.....	33
D Seprianto ¹ , R Sugiantoro ¹ , Siproni ¹ , Yahya ¹ and M Erwin ²	
Simulation of the Effect of Cutting Angle in Lathe Process on Distribution of Cutting Temperature ..	34



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Srijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Ismail T ¹ , Amrifan SM ² , Irsyadi Y ³ , Riman S ⁴ , Rahmad H ⁵	34
Conduction Heat Rate Analysis of Tool in Titanium Turning Process	35
Ismail T ¹ , Amrifan S M ² , Riman S ³ , Irsyadi Y ⁴ , Sandro O ⁵ , Fatiandari A ⁶	35
Cooling Channel Design for a Built-In Spindle of a Machine Tool.....	36
Kun-Ying Li ^{1,2} , Win-Jet Luo ^{2*} , Shih-Jie Wei ¹ , and Yan-sin Liao ¹	36
Design of Automatic Control Systems at Loader Output of Snap Gauge Machine in Manufacturing Industry	37
Syahril Ardi ¹ and Rahardian Faizal Zuhdi ²	37
The Influence of Change of an Angle of Illuminance on Solar Power Generating Capacity 30 Watts in Laboratory of Electrical Engineering Polytechnic of Sriwijaya.....	38
Zainuddin Idris, M. Yunus, Siswandi, Bambang Guntoro.....	38
The Effect of Drying Airflow Rate on H ₂ O MASS Evaporated for Banana Chips Drying Using Photovoltaic Solar Panel	39
Yohandri Bow ¹ , Adi Syakdani ² , Muhammad Taufik ² , Rusdianasari ³	39
Development and Feasibility Analysis of Floating Solar Panel Application in Palembang, South Sumatra.....	40
Benny Junianto ¹ , Tresna Dewi ² , Carlos Sitompul ²	40
Effects of Grid Frequency Drop on The Dynamic Performance of Full Converter Wind Turbine Generator.....	41
A. M. Shiddiq Yunus ¹ , Makmur Saini ² , Sri Suwasti ¹ , dan Purwito Purwito ³	41
Modified Design for Water Metering System.....	42
Nyayu Latifah Husni ¹ , Dampito ² , Abdurrahman ³ , Evelina ⁴ , ade Silvia Handayani ⁵ , Sabilal Rasyad ⁶ , Adella Rialita ^{7,1-7} Electrical Department, Politeknik Negeri Sriwijaya	42
Implementation of Fuzzy Logic Type-2 On Mobile Robot Navigation System.....	43
Ade Silvia Handayani, Jefri Alkausar, Sarjana Sarjana, Nyayu Latifah Husni, Siti Nurmaini, Irsyadi Yani.....	43
The Analysis of Wear on Artificial HIP Joint with Dimple on Femoral Surface	44
Hasan Basri ^{1,*} , A. Syahrom ^{2,3} , Amir Putra Md Saad ² , A. T. Prakoso ¹ , D. Wicaksono ¹ , M. I. Amarullah ¹ , Tri Satya Ramadhoni ¹	44
Mechanical Degradation Model of Porous FE Scaffold: Simulation Approach.....	46



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Srijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Akbar Teguh Prakoso ¹ , Ardiyansyah Syahrom ^{2,3} , Amir Putra Md Saad ^{2,3} , Abdul Hadi Abdul Wahab ⁴ , M. A. Sulong ^{2,3} , Achmad Rendiko Ichsan ¹ , Apreka Diansyah ¹ , Risky Utama Putra ¹ , Muhammad Imam Ammarullah ¹ , Hasan Basri ^{1*}	46
Scoopy Blade for Low Current River Waterwheel Supporting The Energy Needs in The Rural Areas of Indonesia.....	47
Darmawi ¹ , Riman Sipahutar ² , Irwin Bizzy ³	47
SELT Design as a source of renewable electricity using the Flywheel Generator and Photodiode Sensor	48
Indra Maulana, Dicky Seprianto, Yossy Yudhianto, Muhammad Najib, Muhamad Azwar	48
Analysis of Upgrading Process Of South Sumatera Low Rank Coal	49
Riman Sipahutar ¹ , Diah Kusuma Pratiwi ¹ , Darmawi Bayin ¹ , Irwin Bizzy ¹ , Baiti Hidayati ²	49
The Effect of Parameters on The Process of Making Objects With Rapid Digital Prototyping Light Processing Technology on The Bending Stress	50
Romli ¹ , D Seprianto ¹ , DP Putra ¹ , and M Rasid ¹	50
The Effect of Rectangular Parallel Key Manufacturing Process Parameters Made With Stereolithography DLP 3D Printer Technology against Impact Strength.....	51
D Seprianto ¹ , R Sugiantoro ¹ , Siproni ¹ , Yahya ¹ and M Erwin ²	51
Simulation of the Effect of Cutting Angle in Lathe Process on Distribution of Cutting Temperature ..	52
Ismail T ¹ , Amrifan SM ² , Irsyadi Y ³ , Riman S ⁴ , Rahmad H ⁵	52
Conduction Heat Rate Analysis of Tool in Titanium Turning Process	53
Ismail T ¹ , Amrifan S M ² , Riman S ³ , Irsyadi Y ⁴ , Sandro O ⁵ , Fatiandari A ⁶	53
Cooling Channel Design for a Built-In Spindle of a Machine Tool.....	54
Kun-Ying Li ^{1,2} , Win-Jet Luo ^{2*} , Shih-Jie Wei ¹ , and Yan-sin Liao ¹	54
Design Control Systems of Marking Machine and Total Length Check Damper Assembly Based on Programmable Logic Controller	55
Syahril Ardi ¹ and Juliantito Ardianto ²	55
Experimental Vibration Study in Milling Thin-Walled Ti6Al4V Under MQL Using Coconut Oil As Cutting Fluid	56
M Yanis ^{1*} , A S Mohruni ¹ , S Sharif ² , I Yani ¹ , M Zahir ¹	56
Determination Overlap Ratio on Savonius Twisted Water Turbine Using Numecca Software.....	57
Dr. Carolus Bintoro ¹ , Vicky Wuwung MT ¹ , Fathurrohman Nurdin ²	57



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Srijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Optimization Electricity Supply for Thousand Island Jakarta Province by Using Hybrid Photovoltaic-Wind Turbine-Diesel Generator-Crude Palm Oil (CPO) Power Plant-Battery System	58
Dharma Manurung ¹ and Rinaldy Dalimi ¹	58
Study on Using Casting Simulation Software for Design and Analysis Gate and Riser in Small Foundry Industries	59
Irawan Malik ¹ , A S Almadora ² and M Ali ³	59
Application of Vacuum Valve Technology as AFR Settings in 3500 Watt Operated by Methane Gas .	60
Tri Widagdo ¹ , Ella Sundari, Eka Satria martomi ¹	60
Innovation Utilization of Nitridation Method in Improving Hardness and Corrosion Resistance of Blacksmiths Crafts	61
Muhammad Rasid, S.T., MT. ¹	61
Performance Analysis of a Sludge Drying	62
Win-Jet Luo ¹ Nai-Feng Wu ² Cheng-Yan Lin ² Deri Suhaej ²	62
Study on Ventilation Performance in Operating Room with Variation Ventilation Design	63
Yan-Lin Wu, Yu-Lieh Wu, Azka Hasya Hanifan	63
D Santoso ¹ , Z Abidin ¹ , J Yanto ²	64
Analysis Model for Orifice Flow Meter Correction Factor in Measuring in-Pipe Natural Gas Flow based on Numerical Simulation	65
Bunyamin ¹ , Kaprawi ¹ , Dewi Puspitasari ¹ , Sugianto ² , Nyayu Latifah Husni ³	65
The Analysis of Biogas Fermentation Time from Cow Manure on Biodigester Fixed Dome Batch Systems	66
Sajaruddin ¹ , Leila Kalsum ¹ , Zainuddin Muchtar ²	66
The Effect of Surface Modification on Heat Transfer of Heat Exchanger	67
Hong-Yi Lin, Yu-Lieh Wu, Kai-Siang Yang, Chih-Yung Tseng	67
Prototype of Biodiesel Processors Using Waste Oil (Study of The Effect of The Number of CAO Catalyst (Blood Shell Shells) and Reaction Time of The Biodiesel Rendemen)	68
Ida Febriana ^{1,2} , Aneasari M ¹ , KA Ridwan ¹ , Taufik Jauhari ¹	68
Production of Ethyl Ester with The Influence of Electrode Type, Reaction Time And Electric Voltage from Waste Cooking Oil	69
Rosdiana Moeksin [*] , Farida Ali, Susila Arita	69



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Srijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Biscuit Product Development Using Moringa Oleifera Flour as an Additional Source of Nutrition	70
Hilwatullisan ^{1(a)} , M. Zaman ¹ , A.Husaini ¹ and Siti Chodijah ¹	70
The Physical Characteristics of Cracked Plastic Waste	71
Selpiana ¹ , Prahady Susmanto ¹ , Lia Cundari ¹ , Dedek Oktari ² , Omar Ibrahim ²	71
The Analysis of The Use Calcium Oxide from Waste Cockle Shells (<i>Anadara Granosa</i>) and Sodium Hydroxide Catalyst on Prototype Biodiesel Processors Using Waste Cooking Oil Reviewed on Yield of Biodiesel	72
Sahrul Effendy, Tahdid, Lety Trisnaliani, Sandy A Putra, dan Alifah R Hefyani	72
Effect of Temperature and Starter Concentration on The Fermentation Process in Making MOCAF .	73
Muhammad Yerizam ¹ , Suri Andayana ¹ and Utari Oktavia ¹	73
Adsorption of Synthetic DYE by Betel Nuts Activated Carbon in a Fixed-Bed Column, Experiments And Prediction of Breakthrough Curves	74
L Cundari*, M N Fakhri, M Z Rizki	74
Effect of Catalysts on The Quality of Biodiesel from Waste Cooking Oil by Induction Heating	75
Rusdianasari ¹ , Aida Syarif ¹ , Muhammad Yerizam ² , M. Syahirman Yusi ³ , Leila Kalsum ¹ , Yohandri Bow ²	75
Characterization of Red Beetroot Soft Jelly Candy with Guava Extract and Gel Colloid Added	76
Meilianti* ¹ , Marta Aznury ¹ , Yuniar ¹ , Sofia ¹ , Ismy Farhan ¹ , Lidia Agustina ¹	76
Flow Rate Effect and NaOH Concentration to CO ₂ Reduction in Biogas Products Using Absorber	77
Lety Trisnaliani ¹ , Dina Eka Pranata ² , Fatria ³ , Tahdid ⁴ , KA Ridwan ⁵ , M. Nurizzman Alfarizi ⁶ , Mangihut Pandapotan Lumbantoruan ⁷	77
Prototype of Tray Dryer Unit for Silica Gel Drying Based on Bagasse	78
Selastia Yulianti ^{1(a)} , Fadarina ¹ , Mustain Zamhari ¹ , and Ibnu Hajar ¹	78
Modification of Starch from Yam Taro with Hydrolysis Acid as The Adhesive	79
Yuniar ^{1,2} , Martha Aznury ¹ , Sofiah ¹ , Meilianti ¹	79
The Performance of Reverse Osmosis (RO) Membrane in Producing Pure Water	80
Robert Junaidi ¹ , Abu Hasan ² , dan Muhammad Yerizam ³ , Indah Purnamasarii ⁴	80
Concentrations of Dissolved Oxygen in Drinking Water	81
Erwana Dewi ^{1(a)} , Aisyah Suci N ¹ and Elina M ¹	81
Growth Kinetics of <i>Saccharomyces Cerevisiae</i> and Tape Yeast on the Cassava Pulp Fermentation	82



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Srijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Beni Hidayat, Udin Hasanudin, Muhamad Muslihudin, Syamsu Akmal, Siti Nurdjanah, Neti Yuliana	82
Distillation of Patchouli Oil Using Firewood and Liquefied Petroleum Gas as Fuel: Effects of Yield, Quality and Cost Analyses.....	83
Mahlinda and M. Dani Supardan	83
Evaluation of Main Parameter Process of Anaerobic Digestion of Cow Dung in Fixed Dome Biodigester on Methane Gas Quality	84
Leila Kalsum, Abu Hasan, Rusdianasari, A.Husaini Yohandri Bow	84
Re-Design Pyrolysis Reactor Prototype for The Conversion of Plastic Waste into Liquid Fuel.....	85
Arizal Aswan, IrawanRusnadi, Fatria, Zurohaina, Rima Daniar	85
Value Added Analysis of Beef Floss with Fillers of Papaya Fruits And Banana Blossom's.....	86
Sri handayani, Chandra utami wirawati, Saroni saroni, Dwi eva nirmagustina.....	86
Marketing Efficiency of Organic Rice in Lampung Province	87
Sri Handayani, Dwi Eva Nirmagustina, Muhammad Irfan Affandi.....	87
Simple design of pyrolysis tool for making liquid smoke from shells and rubber seeds as a food preservative	88
Farida Ali, ¹ Roval Al Fiqri ²	88
Industrial Mapping in Java-Kalimantan-Nusa Tenggara Corridor	89
M A Berawi ¹ , P Miraj ^{2,3} , H Sidqi ² , G R Gaffara ^{2,4} and Gunawan ²	89
Revenue Analysis of Port-City Conceptual Design	90
M A Berawi ¹ , P Miraj ^{2,3} , E R Islamiah ² , and Gunawan ²	90
The Utilization of Plastics Waste in Flexible Pavement Hot Rolled Sheet and Asphalt Concrete Wearing Course With Marshall Immersion and Cantabro Test.....	91
Adhitya B B ¹ , Pataras M ² , and Kadarsa E ³	91
Characteristics Comparison of Refinery Asphalt, Rubberized Asphalt, and Buton Asphalt in Stone Matrix Asphalt Pavement with Marshall and Cantabro Method.....	92
Kurnia A Y ¹ , Dewi R ² , Permata D Y ³ , and Pataras M ⁴	92
The Effect of Polycarboxylate Addition towards The Workability and High Strength Concrete	93
Sumiati ¹ , Mahmuda ² , Andi Herius ³ dan Agus Subrianto ⁴	93



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Sriwijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Stabilization of Peat Soils Using Petrasoil with Cement Viewed from CBR Value and Free Compressive Strength Value of Soils	94
Ibrahim, S.T.,M.T. ¹ , Andi Herius, S.T.,M.T. ² , Julian Fikri, S.S.T., M.Sc. ³ , M. Shaïd Ramadhinata ⁴ , Maryani ⁵	94
The Utilization of Crushed Clay Brick as Coarse Aggregate on Eco-Green Lightweight Foamed Concrete.....	95
Sumiati ¹ , Mahmuda ² , Sukarman ³ , Siswa Indra ⁴ , and Darma prabudi ⁵	95
Performance analysis of Patal - Pusri Intersections after underpass operated	96
Arfan Hasan ¹ , Indrayani ¹ , Ridho Adrian ¹ , Dwiki Syamanda ¹ , Darma Budi ¹ , and Akhmad Mirza ¹	96
Utilization of Coconut Shells as a Replacement of Some Coral Stone in Concrete Making	97
Raja Marpaung, Kosim, Zainuddin, Darma Prabudi	97
Public Transportation Service Bus Rapid Transit (BRT) Trans Musi Sustainable in Palembang City.....	98
A. Latif, Yusri, Moch.Absor, A. Fuad Z.	98
Transportation Needed of Bus Rapid Transit (BRT) Corridor in Palembang	99
Herlinawati, Puryanto, Sudarmadji, Sazili	99
Effect of Groundwater Table on Slope Stability and Design of Retaining Wall	100
R Ahmad ^{1*} , A B Mardhanie ¹ , P Suroso ¹ , T E Sutarto ¹ and R Alfajri ²	100
Falisa ^{1*} , Hendri Chandra ^{2*} , Harnani ^{3*}	108
^{1,3} Teknik Geologi, Universitas Sriwijaya, Indralaya.....	108
² Teknik Mesin, Universitas Sriwijaya, Indralaya	108
* <i>Corresponding author</i> : falisa@unsri.ac.id.....	108
Information System of Small And Medium Business in Palembang City	112
Hetty Meileni, Cindy Indah Pratiwi, Ienda Meiriska, and Desi Apriyanty	112
Inventory of Goods Data Processing Using The Economic Order Quantity (EOQ) Method	113
Hetty Meileni, Diky Juniansyah Putra, Desi Apriyanti, Indra Satriadi, Sony Oktapriandi	113
Internet of Thing for the Command Robot Command System.....	114
Emilia Hesti ¹ , Sholihin ² , Adewasti ³ , Sarjana ⁴	114
The Effect Of Addition Of High Density Poly Ethylene (Hdpe) As Binder On Hebel Light Brick (Celcon)	115



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Sriwijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



The Effect Of Addition Of High Density Poly Ethylene (Hdpe) As Binder On Hebel Light Brick (Celcon)	116
Implementation of Fingerprint Control in Majors Electrical Engineering Using Arduino	117
Ibnu Ziad ¹⁾ , Ali Nudin ²⁾ , Jon Endri ³⁾ , Ciksadan ⁴⁾	117
Biodiesel Production From Bintaro (Cerbera Manghas L) Seeds With Potassium Hydroxide As Catalyst	118
The Copper Fiber On Compressive Strength And Elastic Modulus On Concrete Fc'25	119
Information System Feature Development Of Telecommunications Engineering Study Program To Support The New Accreditation And The New Curriculum System	120
Grip Tool Cnc Mill 3a To Get 12 Sides Of The Elbow On Results Induction Electrical Furnance Casting	121
Implementation Of Parking Portal Door Security System Using Rfid And Password Based On Microcontrollers In Sriwijaya State Polytechnic	122
Technique Automatic For Detection And Segmentation Of Optic Disc Area In Retinal Image	125
Erwin ¹ , B Cania ² , I K Larasati ³	125
New Techniques For Segmentation And Extraction Retinal Blood Vessels	126
Erwin, A Rohman, L A Nurjanah, Yurika, D Sinta, Q Al'afwa	126
Optimization of City Bus Routes in Surabaya Using Memetic Algorithm as a Solution to Solve Orienteering Problem	127
Fauzi Rakhmad Firdausi, Arif Djunaidy, Ahmad Muklason	127
A Form of Preprocessing For Social Media Data Extraction	128
Dodo Zaenal Abidin, Siti Nurmaini, Reza Firsandaya Malik, Jasmir Jasmir	128
Factors Affecting Knowledge Sharing Capability of Doctors in Palembang	129
Nining Ariati, Dana Indra Sensuse, Putu Wuri Handayani	129
Serious Game Supply Chain Management Agribusiness as a Production Planning using Cournot Model	130
Saiful Bukhori	130
Smart Cup for Visual Impaired People Based on Arduino	132
Aryanti Aryanti ¹² , Lin Wei-cong ¹ , Lin chih-yi ¹ , Billy Brian Henriquez ⁴ , Ikhthison Mekongga ³ , Aaron Raymond See ^{1*}	132
Challenges of Teaching in Massive Open Online Course	133



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Sriwijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



M A Ahmad ¹ , A R C Hussin, H M Dahlan ¹ , J Mahmood	133
Analysis of Service Oriented Architecture and Enterprise Architecture Alignment for Loan Financing System.....	134
Ahmad Nurul Fajar	134
Analysis of Service Oriented Architecture and Enterprise Architecture Alignment for Loan Financing System.....	135
Ahmad Nurul Fajar	135
Analysis of Server Virtualization Service Performance Using Citrix Xenserver”	136
Surahmat, Alfred Tenggono	136
The Pattern of The Marketing Ground Coffee Beans Using Decision Support System	137
Suparto Darudiato, Eliando Eliando	137
The Pattern of The Marketing Ground Coffee Beans Using Decision Support System	138
Suparto Darudiato, Eliando Eliando	138
The Utilization of Ontology in Association Rule.....	139
Dewi Wardani, Achmad Khusyaini	139
The Evaluation of Semantic Mapping	140
Dewi Wardani ¹	140
Measurement of User Satisfaction Level on Implementation of SISKEUDES Application	141
¹ Mardiana and ² Eka Hartati	141
Garbage Collector Robot (GACOBOT) Design for Dry Waste Distribution.....	142
Aditya P. P. Prasetyo, Rendyansyah, Sri Desy Siswanti, Siti Nurmaini, Abdurahman.....	142
Use of Haversine Formula in Finding Distance Between Temporary Shelter and Waste End Processing Sites.....	143
Rezania Agramanisti Azdy, Febriyanti Darnis.....	143
Geographic Information Systems Search Test Location For Admission Of New Students In Sriwijaya State Polytechnic Using Location Based Service (LBS) Method	144
Book Catalog Information System in The Reading Room (Library) Web-Based at Informatics Management Department in State Polytechnic of Sriwijaya.....	145
Henny Madora ¹ , Yusniarti ² , Ida Wahyunigrum ³ , Muhammad Noval ⁴	145
Pull-down Fitness Technique Analysis using Motion Capture	146



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Sriwijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



R Passarella, A S Nugroho, and F N Arsyad	146
Analysis of EDFAT Methods in Photography Techniques	147
Meiyi Darlies, Ema Laila, Ali Firdaus, Muhamad Erwin.....	147
Predicting Cost Recovery Rate of Ischemic Stroke Patients: A Potential Application of Big Data Analysis in Hospital	148
^{1*} Heru Fahlevi, ² Teuku Roli Ilhamsyah Putra and ³ Rina Suryani Oktari.....	148
Development Analysis For Numbers And Colors Learning Media	149
Yesi Sriyeni and Maria Veronica.....	149
Animation Design as an Educational Media of Adolescents' Social Behavior Deviation" has been accepted with major revision	150
Heki Aprianto and Alan Saputro	150
Designing Mobile Based User Interface for Promotion of Lakeur Craft Art Application at Balaputra Dewa State Museum.....	151
Syahrul, Pertiwi	151
Prototype of RFID –Based Parking Slot Availability Detection System	152
Lindawati ¹ , I Salamah ¹ , Asriyadi ¹ , M Fadhli ¹	152
Mobile Robot Motion Control Based on Static Hand Gesture.....	153
DS Sri , FP Rian , Z Ahmad	153
Object-Based Design and Modeling Batik Nusantara Catalog Wibatara.com	154
Adelin Adelin, Febria Sri Handayani.....	154
Genetic Algorithm Based Feature Selection With Ensemble Methods For Student Academic Performance Prediction	155
Al Farissi, Halina Mohamed Dahlan, Samsuryadi.....	155
Information System Strategy Planning In The Private Universities Of South Sumatera.....	156
Engine Replacement Scheduling Optimization Using Data Mining	158
Farizal1 and Albert Joelian	158
User Experience Analysis on Class I LPKA Palembang Filial E-School	159
D. Tri Octafian, Febrianty, Hendra Hadiwijaya	159
Information System of Student's Final Report And Final Assignment At State Polytechnic of Sriwijaya with Android Based.....	160



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Sriwijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Rika Sadariawati, A. Ari Gunawan, Meivi Kusnandar.....	160
Design of Semester Exam Scheduling at The State Polytechnic of Sriwijaya Application	161
Nita Novita, M. Aris Ganiardi, Indri Ariyanti, Delta Khairunnisa	161
Augmented Reality in the Registration Flow for Entrance Examination at State Polytechnic of Sriwijaya Based on Android	162
Rike Sucihati,Ahmad Bahri Joni Malyan, Ervi Cofriyanti	162
Design and Build Application of Campus Parking Area for State Polytechnic of Sriwijaya Based on Smartphone	163
Leni Novianti, Devi Sartika , Dewi Irmawati, Ienda Meiriska	163
Implementation of Biometric Fingerprint Barbasis Security Doors with Attendance Database on Sriwijaya State Polytechnic	164
A.Bahri Joni M , Herlambang Saputra , Ahyar Supani , Indarto	164
Designing and Applying Flood Early Warning System with Fuzzy Logic Based on Rainfall and Water Level for Special of Palembang City	165
Ahyar Supani, Yuli Adriani.....	165
Performance of RUS and SMOTE Method on Twitter Spam Data Using Random Forest.....	166
Huda Ubaya and Ria Siti Juairiah	166
Mobile Android Based Geographic Information System (GIS) Software Development for Tourist Destination Seekers in Palembang City Using RASCH Model Measurements.....	167
Sanjaya, Kurniawan, Saputra, Azhar	167
GIS Android Mobile Based Software Development for Tourism Objects, Public Places List, Transportations List, and Culinary Places List Using Usability Measurement	168
M. Rudi Sanjaya, Dedy Kurniawan, Ariansyah Saputra, Iman Saladin B Azhar.....	168
TRACK 3	172
MANAGEMENT ECONOMICS, BUSINESS ADMINISTRATION, ACCOUNTING	172
Impact of Learning, Socialization and Financial Lifestyle on Student' Intention to Invest in Capital Market.....	172
Dewi Fadila, Hendra Satrawinata, Mariskha Z, Riska Maulana.....	172
The Effect Of Capital Readiness And E-Commerce Utilization On The Competitiveness Of Micro Small And Medium Enterprises (Msmes) Woven Palembang.....	173
Dimensions of Village Expenditure in Development Sector	174



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Srijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Zulkifli Zulkifli, Rita Martini, Sukmini Hartati, Endah Widyastuti.....	174
Comparison Analysis of Organic Rice and an Organic Rice Added Value Approach.....	175
Dwi Eva Nirmagustina, Sri Handayani and Luluk Irawati	175
Analysis of Political Connection, Profitability and Capital Intensity Against Tax Avoidance in Coal Companies on The Indonesia Stock Exchange	176
Rizki Fitri Amalia.....	176
Human Resource Role and Application of Technology in the Fourth Industrial Revolution	177
Relationship Model among Employee Engagement, Organizational Commitment and Employee Performance	178
Munparidi, L.Suhairi Hazizma & A.Jalaludin Sayuti.....	178
The Effect of Customer Orientation and Service Quality on Trust and Customer Loyalty	179
Gst Ayu Oka Widarti, Esya Alhadi, Elvia Zahara, Titi Andriani.....	179
Fetty Maretha, Yulia Pebrianti, Rini, Lisnini.....	180
E-government Policy, Leadership Commitment, Apparatus Resources Development, and Their Implications on Public Service Performance.....	181
Koesharijadi, Hardiyansyah and Muhamad Akbar.....	181
Industrial Clasterization to Improve The Competitiveness of Small and Medium Industries in The City of Palembang	182
Evada Dewata, Yuli Antina Aryani, Yuliana Sari, Aladin	182
The Influence Of Competence, Leadership, Motivation Work Impact On The Commitment Of Civil State Apparatus In The Office Of The Governor South Sumatera Province	183
Sopian.A.R, Periansya, Ardiyan Natoen, Indra Satriawan.....	183
Analysis Method Economic Value Added (EVA) of Cosmetics Companies Listed on the Stock Exchange Period 2013-2017.....	184
Lupikawaty, Alhamdari, Bustan	184
Anggeraini Oktarida, Eka Jumarni Fithri, Lambok Vera Riama, Sri Hartati	185
The Effect of Hospital Image And Service Quality on Customer Loyalty Through Customer Satisfaction as Intervening Variables in Siti Khadijah Hospital in Palembang City.....	186
Susi Ardiani, Sarikadarwati, Henny Yulsiati, Sandrayati.....	186
The Impact of Village Fund Program Implementation towards Society Welfare in Indonesia	187



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Sriwijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Yevi Dwitayanti, Maria Maria, Nurhasanah Nurhasanah, Rosy Armaini	187
Determinants of Village Financial Management Accountability (Study of Villages in Pampangan Sub-District, OKI Regency and Rambutan Sub-District, Banyuasin Regency)	188
Desi Indriasari, Kartika Rachma Sari, Kiagus Zainal Arifin, Choiruddin	188
Evaluation of Sales Price within Calculation Cost of Good Production SMEs Pempek Ilir Barat I and Bukit Kecil District Palembang	189
Elisa, Marieska Lupikawaty, Yusleli Herawati, Purwati.....	189
The Effect of Taxpayer Awareness and Tax Sanctions on Compliance In Paying Land And Building Taxes in Bukit Kecil Sub-District of Palembang.....	190
M. Husni Mubarak, Faridah, Nelly Masnila.....	190
The Environmental Compliance Management of Palm Oil Plantation in Ogan Komering Ilir Regency, Sumatera Selatan, Indonesia	191
M. Yusuf, Yusnizal Firdaus, Markoni Badri, AlHusori	191
Attitude, Motivation, and Parental Involvement towards Students' Reading Comprehension Achievement	192
Nurul Aryanti, Welly Ardiansyah, Murwani Ujihanti	192
Relationship between GPA, Length of Study, and Competence with The Length of Time to Get A Job at Alumni of The Mathematics and Natural Sciences, University of Sriwijaya.....	193
Ali Amran ¹ , Irmeilyana ¹ * and Anita Desiani ¹	193
Testing the Role of Charismatic Leadership, Psychological Climate, and OCB on Resilience	194
Wustari L. Mangundjaya	194
Individual Readiness For Change and Affective Commitment To Change: The Mediation Effect Of Technology Readiness On Public Sector	195
Hermi Agastina Mahendraty, Wustari Mangundjaya.....	195
Leader-Member Exchange and Affective Commitment to Change: Mediating Role of Change Self-Efficacy	196
Dwi Andriani Puspitasari, Wustari L Mangundjaya.....	196
Testing Mediation of Psychological Empowerment, Work Engagement to Affective Commitment to Change	197
Susilo ¹ , Wustari L. Mangundjaya ²	197
Aim, Concept, and Objectives of Education in Islam	198



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Srijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Suroso ¹ , Wasitoh Meirani ² , Muhammad Erwin ³ , Ayu Puspasari ⁴	198
Testing the Impacts of Organizational Justice on Affective Commitment to Change with Work Engagement as Mediator	199
Yurnalis, Wustari Mangundjaya	199
The Effect of Directed Reading - Thinking Activity on Students' Critical Thinking Abilities.....	200
Eliyeny, Herman, Sunani, Muhammad Nadjmuddin	200
The Development of Teaching Material Speaking 2 Based on Communicative Approach for Students in English Department of State Polytechnic of Sriwijaya	201
Darmaliana, Risnawati, Risa, Sri Endah Kusmartini.....	201
Exploring Linkage among Experiential Value, Destination Image and Revisit Intention in Natural-based Tourism.....	202
Heri Setiawan, Taufiq Marwa, Zakaria Wahab, Muchsin Sagaf	202
Students' Perception of English Blended Learning in State Polytechnic of Sriwijaya.....	203
Munaja Rahma, Zakaria, Moehammad Ridhwan.....	203
Online Transportation Technology and Women's Driver Communication Skills.....	204
Pridson Mandiangan, Desloehal Djumrianti, Hanifati	204
The Importance of The Language Experience Approach (LEA) in Teaching Reading Comprehension to The Third Semester of Engineering Students in State Polytechnic of Sriwijaya	205
Zulkifli zulkifli, nian evawati, koryati koryati.....	205
The Effect of Organization Climate on Performance with Job Satisfaction as an Intervening Variable	206
Paisal Paisal, Afrizawati Afrizawati, Divianto Divianto, Yahya	206
The Clustering of Paddy Fields in The Province of South Sumatera as an Input for The Government in Determining Policy.....	207
Suryati, Ahmad Sanmorino	207
The Public Service Quality of The Library Services at The Library Unit of State Polytechnic of Sriwijaya	208
Deri Darfin, Zulkarnaini, Ridwan Effendi, Robinson,	208
The Effectiveness of Blended Learning Approach on Essay Writing Subject.....	209
Sri Gustiani, Yusri, Tiur Simanjuntak, Evi Agustinasari.....	209



The 3rd FIRST 2019
(FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY)
International Conference

Jl. Srijaya Negara Bukit Besar Palembang 30139 South Sumatera – Indonesia
phone +62711 353414 Fax: +62711 355918



Analysis of Student Services at State Polytechnic of Sriwijaya	210
Hadi Winarko, Zaliah, Aimi.....	210
The Effect of Culinary Knowledge and Culinary Experience on Local Culinary Attractiveness.....	211
Heri Setiawan ¹ , Abd. Hamid ² , Ummasyroh ³ & Jusmawi Bustan ⁴	211
Criminal Law Policy In The Crime Of Persecution Carried Out By People Who Come From Outside Orang Rimba Group Against Members Of Orang Rimba Tribe Around The Bukit Duabelas National Park, Jambi Province, Indonesia	212

Human Resource Role and Online Strategy

Sari Lestari Zainal Ridho^{1*}, Neneng Miskiyah¹, Muhammad Anshari², Hadi Jauhari¹

¹Dept. of Business Administration, Politeknik Negeri Sriwijaya, Palembang, Indonesia

²School of Business & Economics, Universiti Brunei Darussalam, Gadong, Brunei Darussalam anshari

*Corresponding author. Email: sarilestari@polsri.ac.id

ABSTRACT

The era of industrial revolution 4.0 had force the implementation of technology in all aspect of life, including in the organization operational. While previous studies investigated the effect of human resource role on performance, this study examined the role of human resource presented the organization performance based on the Role Theory perspective. This research analyzed the online service/marketing attributes and predictors of the human resource role, based on online service attributes and organization performance attributes variables. We distributed questionnaire to tourism community in Indonesia in 2019. In this study we used regression to examine the effect of technology application, online marketing, on human resource role within the organization. The result indicated that some online marketing attributes had a positive impact on human resource role within the tourism community performance.

Keywords: human resource, technology, online

1. INTRODUCTION

Now days, the world is in the era of the forth industrial revolution, marked by the existence of technology, digital information technology, which helps the operational activities of organizations, companies and / or industry. Hence, it becomes a necessity to transform and adapt to the fourth industrial revolution era, as carried out by the Indonesian Ministry of Tourism in carrying out its marketing strategy. The Ministry of Tourism uses online and offline marketing strategies through the activities of the tourism community, that it has formed, in an effort to attract as many visits to Indonesia as possible. This online marketing strategy is carried out by reason of the increasing number of cellular phone users and the number of internet users.

The number of cellular phone users and the number of internet users in Indonesia, based on data from the Central Statistics Agency from the National Socio-Economic Survey, there was an increase in cellular phone users during the 2013-2017 periods, which was originally as much as 50.49 percent in 2013 to 59.59 percent in 2017. Likewise, the number of households accessing the internet, which originally amounted to 31.75% in 2013, became 57.33% in 2017. Not only mobile phone users and households accessing the internet, the increase also occurred in internet users, originally amounted to 14.90 percent in 2013 to 32.34% in 2017 [1].

Given the large number of internet users currently, causing awareness of the Ministry of Tourism to carry out marketing strategies with online marketing/digital marketing through activities by the tourism community formed by the Ministry, which actively promotes

Indonesian tourism through various online media. This online strategy is carried out to capture the opportunities that exist, because it is believed that the rapid progress of the use of information technology can influence organizational performance. The application of technology, as in the promotional activities carried out by the tourism community, in the form of online marketing is expected to increase the role and or performance of the community in its activities in order to increase the number of visits to Indonesia, which is needed to contribute to the economy from tourism industry sector.

Therefore this study aims to examine the effect of online marketing attributes on the role of human resources in the tourism community. According to [2], online marketing has several attributes, namely: transaction or cost; incentive programs; site design; and interactivity, and based on the perspective of role theory [3], performance can be seen from the role of human resources in the form of: role sets, scripts, congruence, expansion, and discrepancy.

Previous research with similar topics has been carried out, including [4], which examines the influence of three resources, namely human resources, information technology, and marketing knowledge on performance. The results of this study [4] indicate that there is a positive performance of the ability of information technology, marketing knowledge, and human resources and the results of the study also stated that the interaction between two or three ways can improve performance. The latest results state that all three abilities are important sources of effort because their abilities significantly improve performance. Other studies have examined the effect of internal marketing on organizational citizenship behaviour and on how online community participation as a moderator is to the relationship between internal marketing and

organizational citizenship behaviour [5]. The results of the study [5] found that internal marketing has positive results on performance, and online community participation is a moderator in the relationship between internal marketing and organizational citizenship behaviour.

This study is different from previous studies, since there is no prior research that examines the effect of each online marketing attributes on role of human resources respectively, which is the attribute of performance based on the role theory perspective. Previously, [4] treated human resources and information technology as independent variables that influence performance, and in the research of [5], marketing variables are independent variables, and community as variables moderator who influences performance, while in this study, information technology and marketing variables become a unified variable representing the technology application variables in the fourth industrial revolution era in the field of marketing, namely online marketing variables, which will be examined for their effects on the role of human resources, where this variable is the dependent variable and the role of the resource itself is considered to represent performance, because the role of human resources is the performance of individuals who are part of organizational performance. It can be said simply that, this study examined the online service attributes and predictors of the human resource role in organization performance, based on online service attributes and organization performance attributes variables.

The paper is organized as follows: in section 1 we discussed the introduction, and then in section 2 we describe the theory, in section 3 we describe the method used and we discuss the result in section 4, and conclude with section 5. Now days, the world is in the era of the forth industrial revolution, marked by the existence of technology, digital information technology, which helps the operational activities of organizations, companies and/or industry. Hence, it becomes a necessity to transform and adapt to the fourth industrial revolution era, as carried out by the Indonesian Ministry of Tourism in carrying out its marketing strategy. The Ministry of Tourism uses online and offline marketing strategies through the activities of the tourism community, that it has formed, in an effort to attract as many visits to Indonesia as possible. This online marketing strategy is carried out by reason of the increasing number of cellular phone users and the number of internet users.

The number of cellular phone users and the number of internet users in Indonesia, based on data from the Central Statistics Agency from the National Socio-Economic Survey, there was an increase in cellular phone users during the 2013-2017 periods, which was originally as much as 50.49 percent in 2013 to 59.59 percent in 2017. Likewise, the number of households accessing the internet, which originally amounted to 31.75% in 2013, became 57.33% in 2017. Not only mobile phone users and households accessing the internet, the increase also occurred in internet users, originally amounted to 14.90 percent in 2013 to 32.34% in 2017 [1].

Given the large number of internet users currently, causing awareness of the Ministry of Tourism to carry out marketing strategies with online marketing/digital marketing through activities by the tourism community formed by the Ministry, which actively promotes Indonesian tourism through various online media. This online strategy is carried out to capture the opportunities that exist, because it is believed that the rapid progress of the use of information technology can influence organizational performance. The application of technology, as in the promotional activities carried out by the tourism community, in the form of online marketing is expected to increase the role and or performance of the community in its activities in order to increase the number of visits to Indonesia, which is needed to contribute to the economy from tourism industry sector.

Therefore this study aims to examine the effect of online marketing attributes on the role of human resources in the tourism community. According to [2], online marketing has several attributes, namely: transaction or cost; incentive programs; site design; and interactivity, and based on the perspective of role theory [3], performance can be seen from the role of human resources in the form of: role sets, scripts, congruence, expansion, and discrepancy.

Previous research with similar topics has been carried out, including [4], which examines the influence of three resources, namely human resources, information technology, and marketing knowledge on performance. The results of this study [4] indicate that there is a positive performance of the ability of information technology, marketing knowledge, and human resources and the results of the study also stated that the interaction between two or three ways can improve performance. The latest results state that all three abilities are important sources of effort because their abilities significantly improve performance.

Other studies have examined the effect of internal marketing on organizational citizenship behaviour and on how online community participation as a moderator is to the relationship between internal marketing and organizational citizenship behaviour [5]. The results of the study [5] found that internal marketing has positive results on performance, and online community participation is a moderator in the relationship between internal marketing and organizational citizenship behaviour.

This study is different from previous studies, since there is no prior research that examines the effect of each online marketing attributes on role of human resources respectively, which is the attribute of performance based on the role theory perspective. Previously, [4] treated human resources and information technology as independent variables that influence performance, and in the research of [5], marketing variables are independent variables, and community as variables moderator who influences performance, while in this study, information technology and marketing variables become a unified variable representing the technology application variables in the fourth industrial revolution era in the field of marketing, namely online marketing variables, which will be examined for their effects on the role of human

resources, where this variable is the dependent variable and the role of the resource itself is considered to represent performance, because the role of human resources is the performance of individuals who are part of organizational performance. It can be said simply that, this study examined the online service attributes and predictors of the human resource role in organization performance, based on online service attributes and organization performance attributes variables.

The paper is organized as follows: in section 1 we discussed the introduction, and then in section 2 we describe the theory, in section 3 we describe the method used and we discuss the result in section 4, and conclude with section 5.

2. LITERATURE REVIEW

One of capital or resources of an organization is human. Human is considered as an important resource for organizational competitiveness [6]. Humans are trusted as organizational resources that affect productivity [7]. Human resources are task completion resources and are responsible for the tasks assigned by the organization. The results of the implementation / completion of the tasks given were defined as performance [8]. With regard to Performance, [9], does not mention the existence of classifications in defining performance, while [8], classifies performance in organizations into two, namely individual performance (work results produced by someone) and organizational performance (overall organizational work results). Therefore, it is not surprising that human resource policies and management are often identified with organizational performance [10].

Individual performance is one example that includes service performance. One of the theorems that examines service performance is role theory, which was developed by [2], according to him, Role Theory is the study of individual behaviour in certain positions, namely about the extent to which it can act appropriately, position or role. These roles include: role sets, scripts, congruence, expansion, and discrepancy. According to [11], the role theory, is able to increase understanding of service interactions in marketing, and explain how role management can be used to evaluate the level of interactivity, thus enabling organizations to identify the need for role development for human resources in interactive service activities and allow organizations to oversee service performance.

The use of technology in the era of the 4th industrial revolution today, is a necessity, as well as in the field of marketing, where marketing activities are influenced by digitalization in the work process, including the use of online marketing as a form of application of technology in providing interactive personal services. Attributes of using product sales/marketing services through online according to [2] consist of four factors, namely transaction/cost; incentive programs; site design; and interactivity [12], examines the relationship between the application of digital technology in the business world and performance,

by exploring how digital technology contributes to performance. The results of the study indicate that the application of digital technology in the form of the use of social media has a positive impact on business performance. Similar research conducted by [13][14], the result shows that the digital factor has effect on performance, in these studies [13][14], the aim were to evaluate the impact of online marketing use on the tourism community on performance, as measured by the role of human resources.

Therefore based on the purpose of our studies, the hypothesis is: Online marketing attributes (transaction/cost; incentive programs; site design; and interactivity) have a positive and significant influence on the roles of human resources (Role Set, Role Script, Role Congruence, Role Expansion, and Role Discrepancy).

3. RESEARCH METHODS

This study employed regression analysis, with the Three Stage Least Square method, to examine the relationship between online marketing and the role of human resources. Before a regression analysis is performed, a pre-test reliability and validity analysis is performed, and also the classical assumption analysis. This research was conducted on members of the tourism community formed by the Ministry of Tourism. The Indonesian Ministry of Tourism uses online marketing strategy as one of the promotional activities undertaken by the tourism community in order to increase the number of visits to Indonesia.

The population of this study is members of the tourism community in Indonesia in 2019, which currently number 15,000 throughout Indonesia [15], based on the total population using the Slovin formula the sample used is approximately 100 people, from a number of questionnaires distributed by random selection, then obtained 110 respondents who can be used as samples in this study. The questions in the questionnaire are made to measure the variables studied, referring to the theory and or previous research regarding online marketing attributes and attributes on role theory for the role of human resource variables [2][3][13] for online marketing consists of 4 attributes, namely: interactive, incentive programs, site design and cost. The interactive attribute measures how easily human resources communicate with and helps respond to tourist questions.

The incentive program attribute measures the benefit/value more than the program as in the case of providing clear information and/or regarding the explanation of tourism products. Site design attributes, measure how far the design of the site used is attractive and neat, and the cost attribute measures the efficiency of using online marketing, as in reducing costs and time. As for the role of human resources consists of 5 attributes, those attribute namely: role set, role script, role congruence, role expansion, and role discrepancy.

The role set attribute measures the usefulness of online marketing in helping to build teamwork and facilitating human resources in serving tourists. The role script

attribute measures the use of online marketing in helping human resources improve service quality and provide sustainable services. The role congruence attribute measures the usefulness of online marketing in helping human resources attract tourists and provide information. The role expansion attribute measures the usefulness of online marketing in assisting human resources in gaining new tourists, and helping with many tasks. The role discrepancy attribute measures the usefulness of online marketing in helping human resources increase creativity and innovation.

4. RESULTS AND DISCUSSION

The results of the initial data processing (pre-test) indicate that, this study has fulfilled all the requirements in the pre-test testing, in the form of reliability, validity, classical assumption, and for the validation process, a Goodness-of-fit measure used is the coefficient of determination (R^2) and Mean Square Error (MSE), and from the results of the processed data, a goodness-of-fit measure namely R-Square and MSE produced a good enough value for all the equations in the simultaneous equation model.

Furthermore, based on the order conditions, the simultaneous equation model concluded can be identified, so that the next step is estimating the model with 3SLS. The following are given the simultaneous equations which will be estimated using Three Stage Least Square (3SLS):

$$Z_1 = c_{10} + c_{11} X_1 + c_{12} X_2 + c_{13} X_3 + c_{14} X_4 + e_1 \quad (1)$$

$$Z_2 = c_{20} + c_{21} X_1 + c_{22} X_2 + c_{23} X_3 + c_{24} X_4 + e_2 \quad (2)$$

$$Z_3 = c_{30} + c_{31} X_1 + c_{32} X_2 + c_{33} X_3 + c_{34} X_4 + e_3 \quad (3)$$

$$Z_4 = c_{40} + c_{41} X_1 + c_{42} X_2 + c_{43} X_3 + c_{44} X_4 + e_4 \quad (4)$$

$$Z_5 = c_{50} + c_{51} X_1 + c_{52} X_2 + c_{53} X_3 + c_{54} X_4 + e_5 \quad (5)$$

Partially/individually testing of the model coefficients with the t test, a significant effect is given when the P-value value α with α is determined at 5%. From the results of the output table, this test provides some conclusions. Based on data on Table 1, the results of this study indicate that the site design factor was important predictors in determining the role set; site design attributes have a positive and significant effect on the role set attributes with a significant level of significance (α) of 10%.

The site design factor was important predictors in determining the role set. This explains that online/digital marketing with an attractive and neat design affects the role of human resources in building teamwork and makes it easier to serve tourists, because with a site with an attractive and neat design the presentation of information is easily understood both by members of other organizations and by traveller.

The site design attribute has a coefficient value on the role set of 0.186253; this shows that site design has a fairly strong influence when compared to other attributes in influencing role sets in the tourism community. Attractive and neat appearance of the site in order to do promotion or online marketing, it is useful in help human resource in making tourists interested in visiting the site and further interested in visiting the tourist destination that is

promoted. These conditions in line with the opinion of [14], which is in their research they stated that attractive site design provides positive value for service users.

Table 1 Role Set t Test Results

Equation	Variable	coefficient	P-value (Prob.)
Role Set (z_1)	Constant	2,074828	0,0001***
	Interactive (x_1)	0,176249	0,1340
	Incentive Program (x_2)	0,127855	0,2924
	Site Design (x_3)	0,186253	0,0849*
	Cost (x_4)	-0,007032	0,9464

* Significant for a significant level (α) of 10%.

** Significant for a significant level (α) of 5%.

**** Significant for a significant level (α) of 1%.

The interactive, incentive program, and site design factors were important predictors in determining the role script, interactive attributes have a positive and significant effect on the role script attributes with a significant level of significance (α) of 10%, incentive programs, and site design has a positive and significant effect on the role script attribute with a significant level of significance (α) of 1%. This explains that online marketing which facilitates community members in communicating, responds to tourists' problems, provides clear information, helps the community in explaining tourism products, attractive and neat designs influence the role of human resources in improving the quality of service for community members and makes it easier to provide continuous service.

Table 2 Role Script t Test Results

Equation	Variable	coefficient	P-value (Prob.)
Role Script (z_2)	Constant	1,091120	0,0126**
	Interactive (x_1)	0,179147	0,0678*
	Incentive Program (x_2)	0,268329	0,0082***
	Site Design (x_3)	0,263179	0,0036***
	Cost (x_4)	0,003128	0,9714

* Significant for a significant level (α) of 10%.

** Significant for a significant level (α) of 5%.

**** Significant for a significant level (α) of 1%.

Interactive attributes, incentive programs, and site design have successive coefficients for role scripts of 0.179147, 0.268329, 0.263179; this shows that incentive programs have a dominant influence when compared to other attributes in influencing role scripts in the tourism community. In this online promotion activity, the provision of clear information, including in explaining about tourist attractions, improves the quality of sustainable services done by the human resources. This finding in accordance with the research conducted by [16], that incentives have positive relationship with e-service quality.

Table 3 shows that, the results of this study indicate that the incentive program, and cost factors were important predictors in determining the role congruence, the incentive program attributes had a positive and significant effect on the role congruence attributes significantly for a significant level (α) of 5%, and cost had an influence which is positive and significant towards the role congruence attribute with a significant level of significance (α) of 1%.

Table 3 Role Congruence t Test Results

Equation	Variable	coefficient	P-value (Prob.)
Role Congruence (z_3)	Constant	1,731700	0,0000***
	Interactive (x_1)	0,022427	0,8066
	Incentive Program (x_2)	0,198025	0,0368**
	Site Design (x_3)	0,136958	0,1041
	Cost (x_4)	0,248349	0,0024***

* Significant for a significant level (α) of 10%.

** Significant for a significant level (α) of 5%.

*** Significant for a significant level (α) of 1%.

These results explains that online marketing that makes it easy for community members to communicate, respond to tourists' problems, provide clear information, help the community in explaining tourism products, and create efficiency in terms of cost and time affects the role of human resources in attracting tourists and helps in providing provide information.

The incentive program, and cost attributes have coefficients successive to role congruence of 0.198025, 0.248349; this shows that cost has a dominant influence when compared to other attributes in influencing role congruence in the tourism community. These results explain that in carrying out the role of attracting tourists and providing information to them, it is dominantly

influenced by the efficiency in terms of cost and time with the use of online marketing. This finding in accordance with theorem that asserted by [17], regarding the correlation between efficiency and technology, according to Him, technology improves operational efficiency and the quality of customer experience.

Table 4 shows that the results of this study indicate that the incentive program, and site design factors are important predictors in determining the role of expansion, the incentive program attributes have a positive and significant effect on the role expansion attributes significantly for a significant level (α) of 1%, and site design has a positive and significant effect on the role expansion attribute with a significant level of significance (α) of 1%.

These conditions explains that online marketing that makes it easy for community members to provide clear information, helps the community in explaining tourism products, attractive and neat designs affect the role of human resources in obtaining new tourists and makes it easy to do many tasks.

Table 4 Role Expansion t Test Results

Equation	Variable	coefficient t	P-value (Prob.)
Role Expansion (z_4)	Constant	1,498913	0,0003***
	Interactive (x_1)	0,004391	0,9623
	Incentive Program (x_2)	0,466512	0,0000***
	Site Design (x_3)	0,144719	0,0905*
	Cost (x_4)	0,033324	0,6868

* Significant for a significant level (α) of 10%.

** Significant for a significant level (α) of 5%.

*** Significant for a significant level (α) of 1%.

The incentive program, and site design attributes have coefficients successive for role expansion of 0.466512, 0.144719; this shows that the incentive program has a fairly large and dominant influence when compared to other attributes in influencing role expansion in the tourism community in provide service to the customer/tourist electronically (e-service). As we mentioned before the better the incentive attribute, the better quality of service given electronically [15], it will support the role expansion of human resource, since in accordance with the prior research, quality of service motivate the customer to come and visit tourism destination [18].

The use of online marketing makes it easy for community members to carry out activities or tasks, besides providing clear information, including explaining tourism products, influences the desire of tourists to search for information on the site, thereby increasing the number of visitors to the site, who are also expected to visit tourism products which is offered.

Table 5 Role Discrepancy t Test Results

Equation	Variable	coefficient	P-value (Prob.)
Role Discrepancy (z_5)	Constant	2,045741	0,0000***
	Interactive (x_1)	-0,119871	0,2120
	Incentive Program (x_2)	0,298321	0,0027***
	Site Design (x_3)	0,098421	0,2647
	Cost (x_4)	0,240626	0,0050***

* Significant for a significant level (α) of 10%.

** Significant for a significant level (α) of 5%.

*** Significant for a significant level (α) of 1%.

Table 5 shows the results of this study indicate that the incentive program, and cost factors were important predictors in determining the role discrepancy, the incentive program and cost attributes had a positive and significant effect on the role discrepancy attribute with a significant level of significance (α) of 1%. This explains that online marketing which makes it easy for community members to provide clear information, helps the community in explaining tourism products, and creates efficiency in terms of cost and time affect the role of human resources in creativity and improvisation.

The incentive program, and cost attributes have coefficients successive to role expansion of 0.298321, 0.240626; this shows that the incentive program has a quite large and dominant influence when compared to other attributes in influencing the role discrepancy in the tourism community. The creativity and innovation of community members can be increased in providing information and explaining tourism products in Indonesia due to technological assistance in the form of online marketing.

Thus mathematically, the formulation of the simultaneous equation model formed is described as follows:

$$z_1 = 2,074828 + 0,176249x_1 + 0,127855x_2 + 0,186253x_3 - 0,007032x_4 + e_4 \quad (1)$$

$$z_2 = 1,091120 + 0,179147x_1 + 0,268329x_2 + 0,263179x_3 + 0,003128x_4 + e_5 \quad (2)$$

$$z_3 = 1,731700 + 0,022427x_1 + 0,198025x_2 + 0,136958x_3 + 0,248349x_4 + e_6 \quad (3)$$

$$z_4 = 1,498913 + 0,004391x_1 + 0,466512x_2 + 0,144719x_3 + 0,033324x_4 + e_7 \quad (4)$$

$$z_5 = 2,045741 - 0,119871x_1 + 0,298321x_2 + 0,098421x_3 + 0,240626x_4 + e_8 \quad (5)$$

Overall, based on the this result and discussion, it can be said that in general the result of this study in accordance with the previous findings [4][5][13][14] in term of that the online strategy as implication of technology adoption has impact on performance.

5. CONCLUSION

Based on the purpose of this study is to examine the online service/marketing attributes and predictors of the human resource role in organizational performance, in other words to test whether online marketing attributes have a positive and significant effect on the role of human resources. Based on online service attributes and organization performance attributes variables, the results of this study can be concluded that: generally accepting the proposed hypothesis that there is a positive and significant effect of online marketing attributes on the attributes of the role of human resources. This conclusion indicates that the results of this study support previous research which states that there is a positive and significant relationship between online marketing variables and performance.

Nonetheless specifically, the conclusions of the results of this study are different because of the use of different variables and the treatment of different indicators or attributes. The conclusion of this study in detail is that: the site design factor had a positive and significant effect on the role set, the interactive, incentive program, and site design factor had a positive and significant effect on the role script, the incentive program and cost factors had a positive and significant effect on the role congruence, the incentive program and site design had a positive and significant effect on the role of expansion, the incentive program and cost had a positive and significant effect on the role discrepancy.

The implications of this research are it's important for the ministry of tourism to continue to adapt to the use of technology in carrying out its marketing activities in order to increase the number of visits to Indonesia. Furthermore, with the consideration that this study has several limitations, then for the purposes of further research several things can be developed, namely in terms of the variables used, the larger number of samples with more detailed techniques, and different analysis techniques.

ACKNOWLEDGMENTS

This research was supported by Politeknik Negeri Sriwijaya, Indonesia. The authors thank our colleagues from Politeknik Negeri Sriwijaya who provided insight and expertise that greatly assisted the research.

REFERENCES

- [1] BPS-Statistic Indonesia, 2018. *Telecommunication Statistic in Indonesia 2017*. BPS-Statistic Indonesia.
- [2] Kim, Eun Young., & Kim.Youn-Kyung., 2004. Predicting Online Purchase Intentions for Clothing Products. *European Journal of Marketing*, 38(7): 883-897
- [3] Solomon, Michael R., Suprenant, Carol, CZepiel, John A., Gutman, Evelyn G., 1985. A Role Theory Perspective on Dyadic Interactions: The Service Encounter. *Journal of marketing*, 49: 99-111. Broderick, Anna J., 1998. Role Theory, Role Management and Service Performance. *Journal of Service Marketing*, 12(5): 348-361.
- [4] Yang, Yi-Feng, 2008. The Roles of Human Resources, Information Technology, and Marketing Knowledge Capabilities in Performance: An Extension of the Resource-Based Theory Perspective. *Social Behavior and Personality*, 36(9): 1269-1282.
- [5] Chang, Chi-Cheng, Tseng, Kuo-Hung, & Chen, Che-Wei, 2012. The Moderating Role of Online Community Participation in the Relationship between Internal Marketing and Organizational Citizenship Behavior. *Social Behavior and Personality*, 40(10): 1725-1738.
- [6] Lin, Chuan, Wang, C.Y., Wang, Chen-Yu, & Jaw, Bih-Shiaw, 2017. The Role of Human Capital Management in Organizational Competitiveness. *Social Behavior and Personality*, 45(1): 81-92
- [7] Hansen, Bjorn Gunnar, & Greve, Arent, 2015. The Role of Human and Social Capital in Dairy Farming. *Rural Society*, 24(2):154-176..
- [8] Kasmir, 2016. *Manajemen Sumber Daya Manusi (Teori dan Praktik)*. Rajawali Pers. Jakarta.
- [9] Fahmi, Irfan, 2017. *Manajemen Kepemimpinan (Teori dan Aplikasi)*. Alfabeta. Bandung.
- [10] Kalleberg, Arne L & Moody, James W., 1994. Human Resource Management and Organizational Performance. *The American Behavioral Scientist*, 37(7): 948
- [11] Broderick, A.1998. Role Theory, Role Management and Service Performance, *Journal of Service Marketing*, 12(5):348-361
- [12] Bouwman, harry, Nikou, Shahrokh, Molina-Castillo, Francisco, J. And de Reuver, Mark, 2017. The Impact of Digitalization on Business Models. *Digital, Policy, Regulation, and Governance*, 20(2): 7-24
- [13] Laksana, Daniel & Dharmayanti, D., 2018. Pengaruh Digital Marketing terhadap Organizational Performance dengan Intellectual Capital dan Perceived Quality sebagai Variabel Intervening Pada Industri Hotel Bintang Empat di Jawa Timur. *Jurnal Manajemen Pemasaran*, 12(1): 10-24.
- [14] Liesander, Indra & Dharmayanti, Diah, 2017. Pengaruh Digital Marketing terhadap Organizational Performance dengan Intellectual Capital dan Perceived Quality sebagai Variabel Intervening Pada Industri Hotel Bintang Lima di Jawa Timur. *Jurnal Strategi Pemasaran*, 4(2): 1-13.
- [15] Purwanto, A. 2019. GenPI Dikenalkan pada Mitra Branding Wonderful Indonesia Retrieved from <https://www.genpi.co/berita/8126/genpi-dikenalkan-pada-mitra-branding-wonderful-indonesia>. Date Accessed on 3 September 2019.
- [16] Hamid, Noor Raihan Ab, Ahmad, Fauziah, Shah, Saharbudin Naim Tahir, Arshad, Noor Habibah, 2012. E-Service Quality as A Building Block to Long-Term Customer Relationships – A Customer Preference Model. *International Journal of Arts & Sciences; Cumberland*, 5(1): 285-302.
- [17] Al Fayad, F. S., 2015. Managing Hotel Supply Chain from Inventory to Guest Service: RFID and The Power of Guest Tracking. *International Journal of Arts & Sciences*, 08(05): 251-258.
- [18] Tian-Cole, Shu, Crompton, John L., & Wilson, Victor L., 2002. An Empirical Investigation of The Relationship Between Service Quality, Satisfaction and Behavioral Intentions Among Visitors to A Wildlife Refuge. *Journal of Leisure Research*, 34(1):1-24.



CERTIFICATE OF APPRECIATION

Present to

HADI JAUHARI

in recognition & appreciation of the contribution as

CO-AUTHOR

FIRST International Conference
"Integration of Advanced Technology to Enhance Social Welfare"
Held On October, 09-10, 2019
The Excelton Hotel Palembang, Indonesia



Dr. Ing. Ahmad Taqwa, M.T.
Director of State Polytechnic of Sriwijaya



Dr. Rita Martini, S.E., M.Si., Ak., CA.
Chair of the 3rd FIRST 2019

Organized :



Collaborate With :

