

The 3rd FIRST 2019 INTERNATIONAL CONFERENCE FORUM IN RESEARCH, SCIENCE, AND TECHNOLOGY OCTOBER 09-10, 2019

Palembang, Province of South Sumatera Indonesia





FOREWORD FROM GENERAL CHAIR 3rd FIRST 2019 INTERNATIONAL CONFERENCE

Welcome to 3rd FIRST 2019, it is with a great pleasure that we extend our warm welcome to all the participants of the 3rd FIRST 2019 International Conference, Forum in Research, Science, and Technology. This conference is held for third times and organized by State Polytechnic of Sriwijaya. The first conference in the series was held in State Polytechnic of Sriwijaya, Palembang, South Sumatera, Indonesia, on October 18-19, 2016, while the second conference was held on October 30-31, 2019 at Horison Ultima Hotel Palembang.

It is a good collaboration of State Polytechnic of Sriwijaya, Management and Science University (MSU), and National Chin-Yi University of Technology (NCUT). To facilitate the researchers and the community server, the 3rd FIRST 2019 is conjugated with Seminar Nasional Aplikasi Teknologi untuk Masyarakat 2019 (SNAPTEKMAS), "Penerapan Perkembangan Teknologi untuk Meningkatkan Nilai Ekonomi Masyarakat".

The 3rd FIRST 2019 International Conference has attracted 109 participants from 6 countries, Malaysia, Japan, Taiwan, and Brunei Darussalam. The 3rd FIRST 2019 particularly encouraged research students and developing academics to present and to discuss new and current work in the field of 3 Tracks, including Engineering and Science (Track 1), Computer Science and ICT (Track 2), and Social Science (Track 3). For the 3rd FIRST 2019, 232 peer reviewed paper by reviewers drawn from the scientific committee, external reviewers and editorial board, however only 192 papers were selected. For SNAPTEMAS 2019, there are only 59 papers that are accepted.

Finally, as the General Chair of the Conference, I would like to express my deep appreciation to all members of the Steering Committee, Technical Program Committee, Organizing Committee and Reviewers who have devoted their time and energy for the success of the event.

At the end, I hope you enjoy the conference and the beauty of Palembang.

Assoc. Prof. Dr.Rita Martini, SE., M.Si., Ak., CA General Chair of 3rd FIRST 2019



FOREWORD FROM DIRECTOR OF STATE POLYTECHNIC OF SRIWLJAYA

Dear all participants, welcome to Palembang, South Sumatera, Indonesia. It is my great pleasure to have all of you who have come from many parts of the world, to join the 3rd FIRST 2019 International Conference, Forum in Research, Science, and Technology. This conference is initiated and organized by State Polytechnic of Sriwijaya in collaboration with Management and Science University (MSU), and National Chin-Yi University of Technology (NCUT).

It is also my great pleasure to see that this conference is an effective media to link the researchers from many parts of the world. The theme for the 3rd FIRST 2019 International Conference, Forum in Research, Science, and Technology is "Applied Technology for Sustainable Development in Supporting Prosperous Human Existence". It is expected it will be 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.

Finally, on behalf of the conference committee, I would like to express my gratitude and great appreciation towards all of the authors, reviewers, and participants for the great contribution to ensure the success of this event.

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

Organizing Committee

International Advisory Committee

Prof. Erry Yulian Triblas Adesta, International Islamic University, Malaysia

Prof. Nurul Taufiqurrahman, Lembaga Ilmu Pengetahuan Indonesia (LIPI), Indonesia

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Irsyadi Yani, ST., M.Eng. PhD, Universitas Sriwijaya, Indonesia

Dr. Yohandri Bow, M.Si, Politeknik Negeri Sriwijaya, Indonesia

Dr. Yuli Yetri, M.Si, Politeknik Negeri Padang

Dr. Marieska Verawaty, M.Si., Universitas Sriwijaya, Indonesia

Dr. Eng. Tresna Dewi, M.Eng., Politeknik Negeri Sriwijaya, Indonesia

Dr. Maya Fitri Oktarini S.T., M.T., Universitas Sriwijaya, Indonesia

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Sukandar S.Si., M.T, Ph.D., Institut Teknologi Bandung, Indonesia

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Dr. Ir.Leila Kalsum, M.T, Politeknik Negeri Sriwijaya, Indonesia

Dr. Martha Aznury, M.Si., Politeknik Negeri Sriwijaya, Indonesia

Dr. Ir. Abu Hasan, M.Si., Politeknik Negeri Sriwijaya, Indonesia

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Dr, Rosmalinda Permatasari ST MT, Universitas Tridinanti Palembang, Indonesia

Erliza Yuniarti, S.T., M.Eng, Universitas Muhammadiyah Palembang, Indonesia

M. Miftahul Amin, S.Kom., M.Eng., Politeknik Negeri Sriwijaya, Indonesia

Leni Novianti, M.Kom., Politeknik Negeri Sriwijaya, Indonesia

Firdaus, S.T., M.Kom., Universitas Sriwijaya, Indonesia

Syarifah Putri Raflessia. S.Kom. M.T., Universitas Sriwijaya, Indonesia

Ervi Cofriyanti, S.Si, M.T.I, Politeknik Negeri Sriwijaya, Indonesia

Local Chairs

Firdaus, S.T., M.T., Politeknik Negeri Sriwijaya, Indonesia

Aladin SE, M.Si,,Ak, CA, Politeknik Negeri Sriwijaya, Indonesia

Dr. Evada Dewata, S.E., M.Si., Ak, CA, Politeknik Negeri Sriwijaya, Indonesia

Dr. M. Syahirman Yusri., M.S., Politeknik Negeri Sriwijaya, Indonesia

Dr. Ir. Aida Syarif, M.T., Politeknik Negeri Sriwijaya, Indonesia

Dr. Neneng Miskiyah, S.E. M.Si., Politeknik Negeri Sriwijaya, Indonesia

Dr. Periansya, M.M., Politeknik Negeri Sriwijaya, Indonesia

Dr. Markoni Badri, S.E., MBA, Politeknik Negeri Sriwijaya, Indonesia

Dr. Heri Setiawan, M.M., Politeknik Negeri Sriwijaya, Indonesia

Pridson Mandiangan, S.E., M.M., Politeknik Negeri Sriwijaya, Indonesia

Bainil Yulina, S.E., M. Si., Politeknik Negeri Sriwijaya, Indonesia Adewasti, S.T., M.Kom., Politeknik Negeri Sriwijaya, Indonesia

Hairul, S.T., M.T., Politeknik Negeri Sriwijaya, Indonesia

Eka Susanti, S.T., M.Kom., Politeknik Negeri Sriwijaya, Indonesia



Yasushi Kiyoki, Professor, Ph.D

Professor of Faculty of Environment and Information Studies and Graduate School of Media and Governance, KEIO University,

Program Chair of "Global Environmental System Leader Program (KEIO GESL): PhD Leading Program in Ministry of Education, Japan,

Former Dean of Graduate School of Media and Governance, KEIO University, 2015 to 2017,

Former President of Database Society of Japan (DBSJ), 2016-2018,

IPSJ(Information Society of Japan) Fellow, 2004,

5D-World Map System Creator : Global Environmental Database System, currently utilized in SDG-14, United Nations-ESCAP:

https://sdghelpdesk.unescap.org/toolboxes?title=&field_sdgs_target_id=All&page=3 (https://sdghelpdesk.unescap.org/toolboxes)

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Prof. Nurul Taufiqu Rochman, M. Eng, Ph. D

Work Experience

- 1. Chariman of Nano Center Indonesia (2012-Now)
- 2. Head of Material and Metallurgical Research Center LIPI (2019-Now)
- 3. Research Proffesor, Physics Research Center LIPI (2017-Now)
- 4. The National Research Council (2016-Now)
- 5. DKI Jakarta Regional Research Council (2018-Now)
- 6. IABIE Expert Board (2016-Now)
- 7. Nano Society Board of Trustees of Indonesia
- 8. Founder and Chairman of Nanotech lobal Innovation Pte. Ltd. (Singapore)

School Attended

KAGOSHIMA UNIVERSITY, JAPAN

Bachelor of Engineering in Material Science, 1995

Master of Engineering in Material Science, 1997

Doctor of Engineering in Material Science and Nanotechnology, 2000

BOGOR AGRICULTURAL UNIVERSITY, INDONESIA

Doctorate in Business and Management, 2011

Intellectual Property

Rochman N.T, K.Yamada, K. Hamaishi, H. Sueyoshi, Metoda Eliminasi Pb dari Paduan Tembaga, Japanese Patent, No Granted 2005-8970 (P2005-8970A); 2005 January.

Rochman N.T, Agus Sukarto Wismogroho. Learning Method of Atomic Motion Phenomena and Crystal Structure Formation of a Material. Patent No. P00200600346; 2006 June 15.

Rochman N.T, Agus Sukarto Wismogroho, Wahyu Bambang Widayatno, Andi Wahyu Indrayana, Nur Hendrasto. Methods and Tools for Producing Zinc Oxide Nanoparticles (ZnO) with Electric Plasma Arc Technology. Patent No. P00201000638; 2010 October 12.



Prof. Tjiptohadi Sawarjuwono, M.Ec., Ph. D., Ak.

Name: Tjiptohadi Sawarjuwono, Prof, M.Ec, Ph.D, CPA, CA Occupation: Lecturer at Airlangga University since 1981, rank: IV e Date and Place of Birth: Bandung, 7 September 1953.

Main Activities:

1. Teaching:

- a. Behavioural Accounting for Bachelor and Master Programmes.
- b. Philosophy of Accounting for Bachelor dan Doctorate programmes.
- c. Qualitative Research Methodology for Bachelor and Master Programmes (Accounting and Islamic Study).
- d. Professional Ethics for Bachelor and Master Programmes.
- 2. Supervising Students at all level of programmes

Other activities

- 1. Vice Rector for Academic and Student Affairs, Universitas Internasional Semen Indonesia (UISI) since 2015.
- 2. Accounting supervisor at Mosque Al Falah, the biggest mosque in Surabaya, since 2014.
- 3. Partner of Accounting Firm Chatim, Atjeng, and Sugeng (CAS), Surabaya, since 2005.

Other experiences

- 1. Indonesia Accounting Association (IAI), member since 1981. Became the Leader of IAI for 3 periods from 2005 till 2017.
- 2. Becomes the speaker on various seminars and workshops with topic on a qualitative research method and an Islamic Accounting.
- 3. Became a leader of Islamic Accounting Forum Academic Accounting Association.
- 4. Editor for several Accounting Journals in Indonesia.



Prof. Win-Jet Luo

Prof. Win-Jet Luo received his master degree in Engineering in 1994 and got his ph.d degree in Engineering in 2000 from National Chen Kung University (NCKU), Taiwan. After getting his ph.d degree, prof. Luo had been teaching in the program of Refrigeration, Air-conditioning and Energy Engineering and program of Electrical Engineering. He was promoted to professor position in 2008. At present, prof. Luo is teaching in Graduate Institute of Precision Manufacturing of National Chin Yi University of Technology (NCUT). Research interests of prof. Luo focus on the computational fluid dynamics, micro electromechanical Systems, ventilation, energy saving, fuel cells and micro-sensors. Prof. Luo has more than 70 journal papers published in the famous international journals and serves the reviewers of the journals. In 2012, 2014 and 2018, he got the engineering paper awards from Taiwan Society of Refrigerating and Air-Conditioning Engineers (TSHRAE). From 2013 to 2019, prof. Luo was nominated as dean of engineering college of NCUT. From 2014 to 2017, he was nominated as the president of TSHRAE and the consultant of council of heat pump engineering in Taiwan as well. He is also a member of Higher Education Evaluation and Accreditation Council of Taiwan. From 2014 to 2019, he has being gotten the honors of distinguished professor of NCUT as well.



Dr. med. vet. Wisnu Nurcahyo, DVM

Professional background:

- 1. Lecturer at Department of Parasitology, Faculty of Veterinary Medicine, Universitas Gadjah Mada since 1990
- 2. Director of Graduate Program of Veterinary Science UGM 2012-2016.
- 3. Chairman of Indonesian Society of Veterinary Parasitology since 2014
- 4. National Coordinator of Community Service in Directorate of Research and Community Services, Indonesian Ministry of Research, Technology and Higher Education since 2012.

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Educational background:

- 1. Training on Tropical Veterinary Parasitology, Institut fuer Parasitologie und Tropische Krankheit, Veterinarmedizinische Fakultaet der Freien Universitaet (FU) Standort Mitte, Berlin, Germany. 1993
- PhD in Molecular Parasitology (Isolation and characterization of recombinant Variance Surface Glycoprotein Trypanosoma congolence in Escherichia coli), Freie Universitaet (FU) Berlin, Germany(DAAD Scholarship), 1993-1998
- 3. Postdoctoral Research Fellowship, Institut fuer Molekularparasitologie der Humboldt Universitaet zu Berlin (HU) Berlin, Germany. 2004

Research interest

Parasitology and Wildlife Conservation



Associate Professor Dr Intan Z. Mat Darus

Associate Professor Dr Intan Z. Mat Darus is an Associate Professor of School of Mechanical Engineering and Associate Chair of Academic Development in the Office of Undergraduate Studies, Universiti Teknologi Malaysia.

Associate Professor Dr Intan Z. Mat Darus was born in Malaysia, in September 16th, 1976. She received her First Class B.Eng. (Hons.) degree in Mechanical Engineering from the University of Wales College Cardiff, Wales, United Kingdom in 1998 and later her Ph.D.in Automatic Control and Systems Engineering from the University of Sheffield, United Kingdom in 2004. Her current research interests are instrumentation measurement and control, modelling and simulation of dynamical system, modelling and control of thermal energy, systems and application, soft computing techniques, evolutionary algorithms, artificial intelligent, robotic and automation system. She is currently the International editorial board member of the Journal of Low Frequency Noise, Vibration and Active Control, Journal of Artificial Intelligence Research (AIR), Jurnal Mekanikal and Journal of Institute Engineer Malaysia (IEM). Associate Professor Dr Intan Z. Mat Darus has published over 140 journal and conference papers and funded over 30 research and industrial collaboration and consultancy projects in the area of robotic and automation, thermal energy, artificial intelligent, evolutionary algorithm, instrumentation, measurement and control. She gained several research and service awards including from the Ministry of Science and Technology and Innovation Malaysia and several research awards from Seoul International Invention Fair. She has supervised over 60 postgraduate research students since 2004. Associate Professor Dr Intan Z. Mat Darus had 20 years of program development and teaching experience in the undergraduate and postgraduate studies at the Universiti Teknologi Malaysia since 1999.

RUNDOWN

3rd FIRST 2019 INTERNATIONAL CONFERENCE (FORUM IN RESEARCH SCIENCE AND TECHNOLOGY) SNAPTEKMAS (Seminar Nasional Aplikasi Teknologi pada Masyarakat) 2019

The Excelton Hotel Palembang, South Sumatera, Indonesia Wednesday-Thursday, October 9-10, 2019

| Wednesday, October 9, 2019 The Excelton Hotel Palembang, Diamante Room (M Floor) | | | | | | | |
|--|--|--|-------------------|---|---------------------------------|--|--|
| No. | Session | Person in Charge | Time Allotment | 1 | iaison Officer | | |
| 1. | Registration | Event Section Committee | 07.00 - 08.00 | | | | |
| 2. | The Opening Ceremony | | | | | | |
| 3. | Do'a | | | | | | |
| 4. | Tari Tanggai | | | | | | |
| 5. | Indonesian National Anthem | | | M.Miftakhul Amin, S.Kom., M.Eng | | | |
| 6. | Chair Report Speech | Event Section Committee | 08.00 - 08.35 | IVI.IVIII (AKII) | ui Ailiii, S.Koiii., W.Eiig | | |
| 7. | Speech and Opening Remarks by Director of State Polytechnic of Sriwijaya | | | | | | |
| 8. | Souvenirs Gift, Group Photos | | | | | | |
| 9. Coffee Break Event Section Committee 08.35 – 09.00 | | | | | | | |
| | | PLENAR | Y SESSION | | | | |
| No. | Keynote Speaker | Affiliation | Time Allotment | Moderator | Liaison Officer | | |
| 1. | Prof. Yasushi Kiyoki, Ph.D | KEIO University, Japan | 09.00 - 09.30 | Tr. Cr 1 | | | |
| 2. | Prof. Win-Jet Luo | National Chin Yi University of Technology (NCUT), Taiwan | 09.30 - 10.00 | Tiur Simanjuntak, M.Pd./ Tommy E Sutarto, | Dr. Eng. Herlambang, M.Kom | | |
| 3. | Assoc. Prof. Ts. Dr. Intan Zaurah Mat Darus | Universiti Teknologi Malaysia | 10.00 - 10.30 | Ph.D | | | |
| 4. | Prof. Dr. Nurul Taufiqu Rochman, M.Eng, Ph.D | LIPI | 10.30 – 11.00 | | | | |
| 5. | Prof. Drs. Tjiptohadi Sawarjuwono M.Ec., Ph.D., Ak. | Universitas Airlangga, Indonesia | 11.00 – 11.30 | Dr. Markoni Badri, S.E., M.B.A. | M.Miftakhul Amin, S.Kom., M.Eng | | |
| 6. | Dr. R. Wisnu Nurcahyo, DVM | Universitas Gadjah Mada, Indonesia | 11.30 – 12.00 | | | | |

| | Break, Sholat Dzuhur, Lunch | | | | |
|-----|--|---|---------------|--|----------|
| | | PARALEL SES | SION | | |
| No. | Theme | Room | Time | Moderator | Articles |
| 1. | TRACK 1 (Engineering and Science) | ROOM 1 Electra 3 (2nd Floor) | 13.00 – 16.12 | Nyayu Latifah Husni, S.T., M.T./ A. M. Shiddiq Yunus, S.T., M. Eng., Ph.d | 23 |
| 2. | TRACK 1 (Engineering and Science) | ROOM 2 Electra 4 (2nd Floor) | 13.00 – 16.12 | Dr. Eng. Tresna Dewi, M.Eng/Fatahul Arifin, Ph.D. | 23 |
| 3. | TRACK 1 (Engineering and Science) | ROOM 3 Electra 5 (2nd Floor) | 13.00 – 16.12 | Ir. Jaksen, M.Si /Dr. Beni Hidayat | 23 |
| 4. | TRACK 1 | ROOM 4 Electra 6 (2nd Floor) /SESSION 1 | 13.00 – 14.36 | M.Miftakhul Amin, S.Kom., M.Eng/Agus Subrianto,M.Eng. | 12 |
| 4. | (Engineering and Science) | ROOM 4 Electra 6 (2nd Floor) /SESSION 2 | 14.44 – 16.20 | M.Miftakhul Amin, S.Kom., M.Eng/Agus Subrianto,M.Eng. | 11 |
| 5. | TRACK 2 (Computer Science, Computer Engineering, Information System, Informatics Management) | ROOM 5 Electra 1 (2nd Floor) | 13.00 – 16.12 | Herlambang, M. Kom, Ph.d./R Passarella, M.Eng | 23 |
| 6. | TRACK 2 (Computer Science, Computer Engineering, Information System, Informatics Management) | ROOM 6 Electra 2 (2nd Floor) | 13.00 – 16.12 | Ervi Cofriyanti, M.TI / Ozkar Firdausi Hamzah, S.T., M.T., M. Sc | 23 |
| 7. | TRACK 3 (Social Science) | ROOM 7 Diamante 1 (M Floor) | 13.08 – 15.48 | Doeslohal Djumrianti, S.E.MIS., Ph.D/Dr. Sari Lestari ZR | 20 |
| 8 | TRACK 3 (Social Science) | ROOM 8 Diamante 2 (M Floor) | 13.00 – 15.56 | Dr. Welly/ Heri Setiawan, MM | 21 |
| 9 | SNAPTEKMAS 1 | ROOM 9 Diamante 3 (M Floor) | 13.00 – 15.40 | Pridson Mandiangan, S.E., M.M M.Si./ Marieska Verawaty, Ph.D. | 19 |

| 10 | SNAPTEKMAS 2 | ROOM 10 Diamante 4 (M Floor) | 13.00 – 15.48 | Dr. Rusdianasari/ Dr. Febrianty | 20 | | |
|------------------|---|---------------------------------|---------------|--|----|--|--|
| 11 | SNAPTEKMAS 2 | ROOM 11 Diamante 5 (M Floor) | 13.00 – 15.48 | Dr. Indri Ariyanti/ Ade Silvia H, ST, MT | 20 | | |
| 12 | TRACK 1, TRACK 2 (Engineering and Computer Science) | ROOM 12 Diamante 6 (M Floor) | 13.00 – 14.36 | HettyMeileni, S.Kom, M.TI/ Alan Novi Tompunu, S.T., M.T. | 12 | | |
| CLOSSING SESSION | | | | | | | |
| Event Time Room | | | | | | | |
| _ | | | | | | | |

| Thursday, October 10, 2019 |
|----------------------------|
| MUSI AND CITY TOUR |

16.30- 17.30

Diamante Ball Room

Announcement of:

Door Prices

Best Paper FIRST IC 2019
 Best Paper SNAPTEKMAS 2019
 Best Presenter FIRST IC 2019

4. Best Presenter SNAPTEKMAS 2019



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

Theme : TRACK 1 (Electrical Engineering) Room

: ROOM 1 (Electra 3, 2nd Floor) : Nyayu Latifah Husni, S.T., M.T./A. M. Shiddiq Yunus, S.T., M. Eng., Ph.D Moderator

Time : 13.00-16.12 WIB

: 23 Articles

| ID | Time | Authors | Title | Affiliation |
|------|--------------------|--|--|--------------------------------|
| 1585 | KEYNOTE SPEAKER | Yasushi Kiyoki | A Global Knowledge Sharing and Semantic Computing System with 5-Dimensional World-Map for Natural and Social Environment-Analysis and Visualization | Keio University |
| 1329 | 13.00 – 13.08 | B Alfaresi, Z Nawawi, R F Malik, K Anwar | 5G Channel Model for 28 GHz frequency in Palembang | Universitas Sriwijaya |
| 1344 | 13.08 – 13.16 | Suzan Zefi, Eka Susanti, R.A Halimahtussa'diyah, Sholihin | Wireless Sensor Network Data Communication and Information system to Regulate Water Volume and Turbine Rotation | Polsri |
| 1504 | 13.16 - 13.24 | Yurni Oktarina, Tresna Dewi, Pola Risma, Muhammad Nawawi | Tomato Harvesting Arm Robot Manipulator; a Pilot Project | Polsri |
| 1461 | 13.24 – 13.32 | Armin Sofijan, Zainuddin Nawawi, Bakhti Yudho, Riman Sipahutar, Irwin Bizzy | Performance Evaluation Solar Charge Controller on Solar Power System Home- Based SPV Amorphous 80 Watt-peak | Universitas Sriwijaya |
| 1463 | 13.32 – 13.40 | Sopian Soim, Suroso, Ade Silvia Handayani, Ahmad Taqwa, Nur Shadrina | The Implementation Of YATEBTS Based GSM Using Raspberry Pi | Polsri |
| 1453 | 13.40 – 13.48 | Brendy Chandra Supian Atmodjo and Rinaldy Dalimi | Optimization of Own Electricity Usage with Electricity Supply from Solar Cells at Darajat Geothermal Power Plant | Universitas Indonesia |
| 1588 | 13.48 – 13.56 | Yeni Irdayanti, Rd. Kusumanto, Masayu Anisah, Niksen Alfarizal, Zarmariesyah Erman | Ultrasonic Sensor Application As A Performance Enhancement Of Robot Two Wheels | Polsri |
| 1535 | 13.56 – 14.04 | Nofiansah, M. Noer, Nurhaida, M. Hafidz Aulia | Operation 3 Phase Induction Motor 1 Kw Star Delta System Using Hp (Smart Phone) | Polsri |
| 1487 | 14.04 – 14.12 | Lin Prasetyani, Bayu Ramadhan, Tresna Dewi, William Sarfat | PLC Omron CJ1M CPU-21 Control Modification for Drill Oil Hole Machine in an Automotive Company | Politeknik Manufaktur Astra |
| 1546 | 14.12 – 14.20 | Yessi Marniati, Andri Suyadi, Herman Yani, Sutan Marsus | Characteristics Of Battery Use In Electric Car | Polsri |
| 1570 | 14.20 – 14.28 | Sabilal Rasyad, Evelina Evelina, Amperawan Amperawan, Dewi Permata Sari, Nyayu Latifah Husni | Learning Module Of Analog Electronics Practice | Polsri |





| 1450 | 14.28 – 14.36 | Resti, Nasution, Burlian, Yani | Different metric distances on the k-means method in building a cans waste classification system using the CMYK color model | Universitas Sriwijaya |
|------|---------------|--|---|-----------------------------|
| 1447 | 14.36 – 14.44 | Zarkasi | Implementation of Facial Feature Extraction Using Viola-Jones Method for Mobile Robot System | Universitas Sriwijaya |
| 1705 | 14.44 – 14.52 | Rumiasih, Carlos R. Sitompul, Anton Firmansyah, Indah Susanti | Effect Of Load On BLCD Motor | Polsri |
| 1468 | 14.52– 15.00 | D A Pratama, N L Husni, E Prihatini, S Muslimin | Implementation of DSK TMS320C6416T Module in Designed of Sound Detection | Polsri |
| 1606 | 15.00 – 15.08 | Ahmad Taqwa, Tresna Dewi, RD Kusumanto, Carlos R Sitompul, Rusdianasari | Automatic Cooling of a PV System to Overcome Overheated PV Surface in Palembang | Polsri |
| | 15.08 – 15.16 | | BREAK | |
| 1710 | 15.16 – 15.24 | Hairul, Markori, Indrawasih dan Sudirman Yahya | Analysis Of Performance Test And Consumption Of BLDC 350 W Motor Power To Mechanical Vibration With Variation Of Speed And Load Variation | Polsri |
| 1610 | 15.24 – 15.32 | Zainuddin Idris, M. Yunus, Siswandi, Bambang Guntoro | The Influence Of Change Of An Angle Of Illuminance On Solar Power Generating Capacity 30 Watts In Laboratory Of Electrical Engineering Polytechnic Of Sriwijaya | Polsri |
| 1629 | 15.32 – 15.40 | Yohandri Bow, Adi Syakdani, Muhammad Taufik, Rusdianasari | The Effect of Drying Airflow Rate on H2O Mass Evaporated of Banana Chips Drying using Photovoltaic Solar Panels | Polsri |
| 1711 | 15.40– 15.48 | Benny Junianto, Tresna Dewi, Carlos Sitompul | Development and Feasibility Analysis of Floating Solar Panel Application in Palembang, South Sumatra | Polsri |
| 1533 | 15.48 – 15.56 | A. M. Shiddiq Yunus, Makmur Saini, Sri Suwasti, dan Purwito | Effects of Grid Frequency Drop on the Dynamic Performance of Full Converter Wind Turbine Generator | Politeknik Ujung Pandang |
| 1767 | 15.56 – 16.04 | Nyayu Latifah Husni, Dampito, Abdurrahman, Evelina, Ade Silvia Handayani, Sabilal Rasyad, Adella Rialita | Modified Design for Water Metering System | Polsri |
| 1349 | 16.04– 16.12 | Ade Silvia Handayani, jefri alkausar, Sarjana Sarjana, Nyayu Latifah Husni, Siti Nurmaini, Irsyadi Yani | Implementation Of Fuzzy Logic Type-2 On Mobile Robot Navigation System | Polsri |





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: TRACK 1 (Mechanical and Energy Engineering) : ROOM 2 (Electra 4, 2nd Floor) Theme

Room

: Dr. Eng. Tresna Dewi, M.Eng/Fatahul Arifin, Ph.D Moderator

: 13.00 - 16.12 WIB Time

Articles : 23

| ID | Time | Authors | Title | Affiliation |
|------|--------------------|--|--|---|
| 1637 | INVITED SPEAKER | Intan Z. Mat Darus | Intelligent Controller for Flexible Robot Arm | Universiti Teknologi Malaysia |
| 1335 | 13.00 – 13.08 | Hasan Basri, A. Syahrom, Amir Putra Md Saad, A. T. Prakoso, D. Wicaksono, M. I. Amarullah, Tri Satya Ramadhoni | The Analysis of Wear on Artificial Hip Joint with Dimple on Femoral Surface | Universitas Sriwijaya |
| 1350 | 13.08 – 13.16 | Fatahul Arifin, Min-Wen Wang, Guo Wei | Optimal Design of Plasticizing Screw Using Artificial Intelligent Approach | University of Science and Technology, Kaohsiung Taiwan |
| 1336 | 13.16 – 13.24 | Akbar Teguh Prakoso, Ardiyansyah Syahrom, Amir Putra Md Saad, Abdul Hadi Abdul Wahab, Achmad Rendiko Ichsan, Hasan Basri | Mechanical Degredation Model of Porous Fe Scaffolds: Simulation Approach | Universitas Sriwijaya |
| 1437 | 13.24 – 13.32 | Darmawi, Riman Sipahutar, Qomarul Hadi | Scoopy Blade For Low Current River Waterwheel Supporting The Energy Procurement In The Countryside Of Indonesia (Part II)" | Universitas Sriwijaya |
| 1443 | 13.32 – 13.40 | Indra Maulana, Dicky Seprianto, Yossy Yudhianto, Muhammad Najib, Muhamad Azwar | SELT Design as a source of renewable electricity using the Flywheel Generator and Photodiode Sensor | Polsri |
| 1460 | 13.40 – 13.48 | Riman Sipahutar, Diah Kusuma Pratiwi, Darmawi Bayin, Irwin Bizzy, Baiti Hidayati | Analysis of Upgrading Process of South Sumatera Low Rank Coal | Universitas Sriwijaya |
| 1664 | 13.48 – 13.56 | Romli, D Seprianto, DP Putra, and M Rasid | The Effect of Parameters on the Process of Making Objects with Rapid Digital Prototyping Light Processing Technology on the Bending Stress | Polsri |
| 1665 | 13.56 – 14.04 | D Seprianto1, R Sugiantoro, Sproni, and Yahya | The Effect of Rectangular Parallel Key Manufacturing Process Parameters Made with Stereolithography DLP 3D Printer Technology Against Impact Strength | Polsri |
| 1469 | 14.04 – 14.12 | Ismail T, Zainal A, Fusito HY, Rahmad H, Ahmad K, Geby P | Simulation of the Effect of Cutting Angle in Lathe Process on Distribution of Cutting Temperature | Universitas Sriwijaya |
| 1470 | 14.12 – 14.20 | Ismail T, Amrifan S M, Riman S, Irsyadi Y, Sandro O, Fatiandari A | Conduction Heat Rate Analysis of Tool in Titanium Turning Process | Universitas Sriwijaya |
| 1503 | 14.20 – 14.28 | Kun-Ying Li, Win-Jet Luo, Shih-Jie Wei, and Yan-sin Liao | Cooling Channel Design for a Built-in Spindle of a Machine Tool | National Chin-Yi University of Technology, |





| | | | | Taiwan |
|------|--------------------------------------|---|--|--|
| 1521 | 14.28 – 14.36 | Syahril Ardi and Rahardian Faizal Zuhdi | Design of Automatic Control Systems at Loader Output of Snap Gauge Machine in Manufacturing Industry | Politeknik Manufaktur Astra |
| 1522 | 14.36 – 14.44 | Syahril Ardi and Juliantito Ardianto | Design Control Systems of Marking Machine and Total Length Check Damper Assembly Based on Programmable Logic Controller | Politeknik Manufaktur Astra |
| 1531 | 14.44 – 14.52 | Muhammad Yanis, Amrifan Saladin Mohruni, Safian Sharif, Irsyadi Yani, muhammad Zahir | Experimental Vibration Study in Milling Thin- Walled Ti6Al4V under MQL using Coconut Oil as Cutting Fluid | Universitas Sriwijaya |
| 1622 | 14.52– 15.00 | Carolus Bintoro, Vicky Wuwung, Fathurrohman Nurdin | Determination Overlap Ratio On Savonius Twisted Water Turbine Using Numeca Software | Bandung Polytechnic State |
| 1594 | 15.00 – 15.08 | Dharma Manurung, Rinaldy Dalimi | Optimization Electricity Supply for Thousand Island Jakarta Province by Using Hybrid Photovoltaic-Wind Turbine-Diesel Generator- Crude Palm Oil (CPO) Power Plant-Battery System | Universitas Indonesia |
| | 15.08 – 15.16 | | BREAK | |
| 1607 | 15.16 – 15.24 | Irawan Malik | Study on using Casting Simulation Software for Design and Analysis Gate and Riser in Foundry Industries | Polsri |
| 1624 | 15.24 – 15.32 | Tri Widagdo, Ella Sundari, Eka Satria Martomi | Application Of Vacuum Valve Technology As Afr Settings In 3500 Watt Operated By Methane Gas | Polsri |
| 1654 | 15.32 – 15.40 | Muhammad Rasid, S.T., MT. | Innovation Utilization Of Nitridation Method In Improving Hardness And Corrosion Resistance Of Blacksmiths Crafts | Polsri |
| 1662 | 15.40– 15.48 (INVITED SPEAKER) | Win-Jet Luo, Nai-Feng Wu, Cheng-Yn Lin, Deri Suhaeji, | Performance Analysis of a Sludge Drying | National Chin-Yi University of Technology, Taichung, Taiwan |
| 1534 | 15.48 – 15.56 | Yan-Lin Wu, Yu-Lieh Wu, Azka Hasya Hanifan | Study on Ventilation Performance in Operating Room with Variation Ventilation Design | National Chin-Yi University of Technology, Taiwan |
| 1761 | 15.56 – 16.04 | Dyos Santoso, Joni Yanto, Zainal Abidin, Muhammad Irfan Dzaky | Effect of the Utilizing Savonius Machine as Auxiliary Starting Device on the Performance of Darrieus Machine | Universitas Sriwijaya |
| 1766 | 16.04– 16.12 | Bunyamin, Kaprawi, Dewi Puspitasari, Sugianto, Nyayu Latifah Husni | Analysis Model for Orifice Flow Meter Correction Factor in Measuring in-Pipe Natural Gas Flow based on Numerical Simulation | Universitas Sriwijaya |





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Theme

 TRACK 1 (Chemical and Energy Engineering)
 ROOM 3 (Electra 5, 2nd Floor)
 Ir. Jaksen, M.Si/Dr. Beni Hidayat Room Moderator

: 13.00-16.12 WIB Time

Articles : 23

| ID | Time | Authors | Title | Affiliation |
|------|---------------|---|---|--------------------------|
| 1367 | 13.00 – 13.08 | Sajaruddin, Leila Kalsum, Zainuddin Muchtar | The Analysis Of Biogas Fermentation Time From Cow Manure On Biodigester Fixed Dome Batch Systems | Polsri |
| 1397 | 13.08 – 13.16 | Hong-Yi Lin, Yu-Lieh Wu, Kai-Siang Yang, Chih-Yung Tseng, Shih- kuo Wu | The Effect of Surface Modification on Heat Transfer of Heat Exchanger | Taiwan (R.O.C.) |
| 1449 | 13.16 – 13.24 | Ida Febriana, Anerasari M, KA Ridwan, Taufik Jauhari | 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)) | Polsri |
| 1451 | 13.24 – 13.32 | Moeksin, Ali, Arita | Production Of Ethyl Ester With The Influence Of Electrode Type, Reaction Time And Electric Voltage From Waste Cooking Oil | Universitas Sriwijaya |
| 1452 | 13.32 – 13.40 | Hilwatullisan, M. Zaman, A.Husaini and Siti Chodijah | Biscuit Product Development using Moringa Oleifera Flour as an additional source of nutrition | Polsri |
| 1465 | 13.40 – 13.48 | Selpiana, Prahady Susmanto, Lia Cundari, Dedek Oktari, Omar Ibrahim | The Physical Characteristics of Cracked Plastic Waste | Universitas Sriwijaya |
| 1472 | 13.48 – 13.56 | Sahrul Effendy, Tahdid, Lety Trisnaliani, Sandy A Putra, dan Alifah R Hefyani | The Analysis of The Use Calcium Oxide from Waste Cockle Shells (Anadara Granosa) and Sodium Hydroxide Catalyst on Prototype Biodiesel Processors Using Waste Cooking Oil Reviewed on Yield of Biodiesel | Polsri |
| 1494 | 13.56 – 14.04 | Muhammad Yerizam, Suri Andayana, Utari Oktavia | Effect of Temperature and Starter Concentration on the Fermentation Process in Making MOCAF | Polsri |
| 1524 | 14.04 – 14.12 | L Cundari, M N Fakhri, M Z Rizki | Adsorption of Synthetic Dye by Betel Nuts Activated Carbon in a Fixed-bed Column, Experiments and Prediction of Breakthrough Curves | Univesitas Sriwijaya |
| 1528 | 14.12 – 14.20 | Rusdianasari Rusdianasari, Aida Syarif, Muhammad Yerizam, M. Syahirman Yusi, Leila Kalsum, Yohandri Bow | Effect of Catalysts on the Quality of Biodiesel from Waste Cooking Oil by Induction Heating | Polsri |





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|------|---------------|---|--|------------------------------|
| 1539 | 14.20 – 14.28 | Meilianti, Marta Aznury, Yuniar, Sofia, Ismy | Characterization Of Red Beetroot Soft Jelly Candy With Guava Extract And Gel Colloid | Polsri |
| 1337 | 14.20 14.20 | Farhan, Lidia Agustina | Added | 1 01311 |
| 1540 | 14.28 – 14.36 | Lety Trisnaliani, Dina Eka Pranata, Fatria, Tahdid, KA Ridwan, M. Nurizzman Alfarizi, Mangihut Pandapotan Lumbantoruan | Flow rate effect and NaOH Concentration to CO2 Reduction in Biogas Products Using Absorber | Polsri |
| 1568 | 14.36 – 14.44 | Selastia Yuliati, Fadarina, Mustain Zamhari, and Ibnu Hajar | Prototype Of Tray Dryer Unit For Silica Gel Drying Based On Bagasse | Polsri |
| 1572 | 14.44 – 14.52 | Yuniar, Martha Aznury, Sofiah, Meilianti | Modification of Starch from Yam Taro with Hydrolysis Acid As the Adhesive | Polsri |
| 1576 | 14.52– 15.00 | Robert Junaidi, Abu Hasan, Muhammad Yerizam, Indah Purnamasarii | The Performance of Riverse Osmosis (RO) Membrane in Producing Pure Water | Polsri |
| 1623 | 15.00 – 15.08 | Erwana Dewi, Aisyah Suci N, Elina M | The Concentrations of Dissolved Oxygen in Drinking Water | Polsri |
| | 15.08 – 15.16 | | BREAK | |
| 1309 | 15.16 – 15.24 | Beni Hidayat, Udin Hasanudin, Muhamad Muslihudin, Syamsu Akmal, Siti Nurdjanah, Neti Yuliana | Growth Kinetics of Saccharomyces cerevisiae and Tape Yeast on The Cassava Pulp Fermentation | Politeknik Negeri Lampung |
| 1318 | 15.24 – 15.32 | Mahlinda and M. Dani Supardan | Distillation of Patchouli Oil Using Firewood and Liquefied Petroleum Gas as Fuel: Effects of Yield, Quality and Cost Analyses | Syiah Kuala University |
| 1713 | 15.32 – 15.40 | Leila Kalsum, Abu Hasan, Rusdianasari, A.Husaini Yohandri Bow | Evaluation of Main Parameter Process of Anaerobic Digestion of Cow Dung in Fixed Dome Biodigester on Methane Gas Quality | Polsri |
| 1716 | 15.40– 15.48 | Arizal Aswan, IrawanRusnadi, Fatria, Zurohaina, Rima Daniar | Re-design pyrolysis reactor prototype for the conversion of plastic waste into liquid fuel | Polsri |
| 1313 | 15.48 – 15.56 | Sri handayani, chandra utami wirawati, sarono sarono, dwi eva nirmagustina | Value Added Analysis Of Beef Floss With Fillers Of Papaya Fruits And Banana Blossom's | Politeknik Negeri Lampung |
| 1319 | 15.56 – 16.04 | Sri Handayani, Dwi Eva Nirmagustina, Muhammad Irfan Affandi ³ | Marketing Efficiency Of Organic Rice In Lampung Province | Politeknik Negeri Lampung |
| 1746 | 16.04– 16.12 | Farida Ali, Roval Al Fiqri | Simple Design For Pyrolisis Tools For Making Liquid Smoke And Its Aplication From Rubber Shells And Seeds As Food Preserves | Universitas Sriwijaya |





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 TRACK 1 (Civil, Architecture and Geology Engineering Engineering) / SESSION 1
 ROOM 4 (Electra 6, 2nd Floor)
 M.Miftakhul Amin, S.Kom., M.Eng/Agus Subrianto, M.Eng. Theme

Room

Moderator

: 13.00-14.36 WIB Time

Articles : 12

| ID | Time | Authors | Title | Affiliation |
|------|---------------|---|---|--------------------------------|
| 1433 | 13.00 – 13.08 | M A Berawi, P Miraj, H Sidqi, G R Gaffara and Gunawan | Industrial Mapping In Java-Kalimantan-Nusa Tenggara Corridor | Universitas Indonesia |
| 1434 | 13.08 – 13.16 | Mohammed Ali Berawi, Perdana Miraj, Ega R Islamiah, Gefra R Gaffara, Gunawan | Revenue Analysis Of Port-City Conceptual Design | Universitas Indonesia |
| 1456 | 13.16 - 13.24 | Adhitya B B, Pataras M., and Kadarsa E | The Utilization of Plastics Waste in Flexible Pavement Hot Rolled Sheet and Asphalt Concrete Wearing Course with Marshall Immersion and Cantabro Test | Universitas Sriwijaya |
| 1459 | 13.24 – 13.32 | Kurnia A Y, Dewi R, Permata D Y, and Pataras M | Characteristics Comparison of Refinery Asphalt, Rubberized Asphalt, and Buton Asphalt in Stone Matrix Asphalt Pavement with Marshall and Cantabro Method | Universitas Sriwijaya |
| 1514 | 13.32 – 13.40 | Sumiati, Mahmuda, Andi Herius, Agus Subrianto | The Effect Of Polycarboxylate Addition Towards The Workability And High Strength Concrete | Polsri |
| 1525 | 13.40 – 13.48 | Ibrahim,, Andi Herius, Julian Fikri, M. Shaid Ramadhinata, Maryani | Stabilization Of Peat Soils Using Petrasoil With Cement Viewed From Cbr Value And Free Compressive Strength Value Of Soils | Polsri |
| 1578 | 13.48 – 13.56 | Sumiati, Mahmuda, Sukarman, Siswa Indra, and Darma prabudi | The Utilization Of Crushed Clay Brick As Coarse Aggregate On Eco-Green Lightweight Foamed Concrete | Polsri |
| 1580 | 13.56 – 14.04 | Arfan Hasan, Indrayani, Ridho Adrian, Dwiki Syamanda, Darma Budi, and Akhmad Mirza | Performance Analysis Of Patal - Pusri Intersections After Underpass Operated | Polsri |
| 1591 | 14.04 – 14.12 | Raja Marpaung, Kosim, Zainuddin, Darma Prabudi | Utilization Of Coconut Shells As A Of Some Coral Stone In Concrete Making Replacement | Polsri |
| 1708 | 14.12 – 14.20 | A. Latif, Yusri, Moch.Absor, A. Fuad Z. | Public Transportation Service Bus Rapid Transit (BRT) Trans Musi Sustainable in Palembang City | Polsri |
| 1709 | 14.20 – 14.28 | Herlinawati, Puryanto, Sudarmadji, Sazili | Transportation Needed of Bus Rapid Transit (BRT) Corridor in Palembang | Polsri |
| 1656 | 14.28 – 14.36 | R Ahmad, A B Mardhanie, P Suroso, T E Sutarto and R Alfajri | Effect of groundwater table on slope stability and design of retaining wall | Politeknik Negeri Samarinda |





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Theme : TRACK 1 (Civil, Architecture and Geology Engineering Engineering) / SESSION 2

Room : ROOM 4 (Electra 6, 2nd Floor)

Moderator : M.Miftakhul Amin, S.Kom., M.Eng/ Agus Subrianto, M.Eng.

Time : 14.44 - 16.20 WIB

Articles : 11

| 1345 | 14.44 – 14.52 | Normaliaty Fithri, Endah Fitriani | Plastic To Fuel Technology As Alternative Operation Of Gas Engine Sukawinatan Waste To Energy In Palembang | Bina Darma University |
|------|---------------|---|--|--------------------------------|
| 1663 | 14.52–15.00 | Tahdid, Aida Syarif, Lety Trisnaliani, Syahrul Effendy | Performance Of 1300 Watt Generator Set Fuelled By A Mixture Of Gasoline And Oil From The Conversion Of Plastic Waste Type Polypropylene (PP) And Low Density Polyethylene (LDPE) | Polsri |
| 1454 | 15.00 – 15.08 | Pamilia Coniwanti, Fitri Hadiah, Roosdiana Muin, Indira Nur Sakinah, FarraUnzilahKendari Putri, Robinsyah | The Effect Of Cracking Temperature From A Mixture Of Hdpe | Universitas Sriwijaya |
| | 15.08 – 15.16 | | BREAK | |
| 1734 | 15.16 – 15.24 | Mahmud Basuki, Selvia Aprilyanti, Azhari, Madagaskar | Design Of Corn Thresher | UTP |
| 1777 | 15.24 – 15.32 | Adi Setiawan, Alex Gusti Randa, Faisal Faisal, Taufiq Bin Nur | Thermal Decomposition Of Gayo Arabica Coffee-Pulp In A Segmented Chamber | Universitas Malikussaleh |
| 1794 | 15.32 – 15.40 | Eka Sri Kandi Putri1, Else Febriana1, Rasyid Ridho1 and Marieska Verawaty | Microbial Community In Constructed Wetland During The Treatment Of Domestic Wastewater | Universitas Sriwijaya |
| 1661 | 15.40– 15.48 | Andriani, M.Shubhi Nurul Hadie and Fuji Asema | The Effect Of Geotechnical Characteristics Toward Road Damage At Lowland Area | Andalas University, Padang |
| 1395 | 15.48 – 15.56 | Falisa Falisa, Hendri Chandra, Harnani Harnani | Geochemical Studies Of Claystone Based On Analysis Of Scanning Electron Microscope (SEM), Talangsawah, Merapi District And Surroundings Of Lahat Regency, South Sumatra | Universitas Sriwijaya |
| 1724 | 15.56 – 16.04 | Fitra Ramdhani | The Evaluation Of Mechanical Rheology On Modification Rubber Asphalt | Abdurrab University |
| 1593 | 16.04–16.12 | Agus Subrianto, Amiruddin Amiruddin, Ibrahim Ibrahim, Ika Sulianti, Nudia Nudia, Salsabila Beladin | Influence Of Water To Foam Ratio On Compressive Strength Of Foamed Mortar As The Road Construction Material | Polsri |
| 1674 | 16.12 – 16.20 | Tommy Ekamitra Sutarto | Effect of bulk density, age, and water content on the erosional strength of streambank soils | Politeknik Negeri Samarinda |





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Theme : TRACK 2 (Computer Science, Computer Engineering, Information System)

Room : ROOM 5 (Electra 1, 1st Floor)

Moderator : Herlambang, M. Kom, Ph.d./ R Passarella, M.Eng

Time : 13.00 - 16.12 WIB

Articles : 23

| ID | Time | Authors | Title | Affiliation |
|------|---------------|---|--|--|
| 1307 | 13.00 – 13.08 | Erwin, A Rohman, L A Nurjanah, Yurika, D Sinta, Q Al'afwa | Technique automatic for detection and segmentation of optic disc area in retinal image | Universitas Sriwijaya |
| 1308 | 13.08 – 13.16 | Erwin, A Rohman, L A Nurjanah, Yurika, D Sinta, Q Al'afwa | New Techniques For Segmentation And Extraction Retinal Blood Vessels | Universitas Sriwijaya |
| 1330 | 13.16 - 13.24 | Fauzi Rakhmad Firdausi, Arif Djunaidy, Ahmad Muklason | Optimization Of City Bus Routes In Surabaya Using Memetic Algorithm As A Solution To Solve Orienteering Problem | ITS |
| 1346 | 13.24 – 13.32 | Dodo Zaenal Abidin, Siti Nurmaini, Reza Firsandaya Malik, Jasmir Jasmir | A Form Of Preprocessing For Social Media Data Extraction | Universitas Sriwijaya |
| 1347 | 13.32 – 13.40 | Nining Ariati, Dana Indra Sensuse, Putu Wuri Handayani | Factors Affecting Knowledge Sharing Capability Of Doctors In Palembang | UIGM |
| 1348 | 13.40 – 13.48 | Saiful Bukhori | Serious Game Supply Chain Management Agribusiness As A Production Planning Using Cournot Model | University of Jember |
| 1366 | 15.48 - 13.56 | Teuku Roli Ilhamsyah Putra, Muhammad Kalvin | How Electronic Word Of Mount (E-WOM) Affects Purchase Intention With Brand Image As A Mediation Variable: Case Of Xiaomi Smartphone In Student | Universitas Syiah Kuala |
| 1355 | 13.56 – 14.04 | Aryanti Aryanti, Lin Weicong, Lin chih-yi, Billy Brian Henriquez, Ikhthison Mekongga, Aaron Raymond See | Smart Cup For Visual Impaired People Based On Arduino | Southern Taiwan University of science and Technology, Tainan, Taiwan |
| 1351 | 14.04 – 14.12 | M A Ahmad1, A R C Hussin, H M Dahlan1, J Mahmood | Challenges Of Teaching In Massive Open Online Course | Universiti Teknologi Malaysia |
| 1371 | 14.12 – 14.20 | Ahmad Nurul Fajar | Service Oriented Architecture and Enterprise Architecture Alignment for Loan Financing System | BINUS |
| 1368 | 14.20 – 14.28 | Albert, Ahmad Nurul Fajar, Nunung Nurul Qomariyah | Analysis Of SOA Framework For Property Real Estate Industry | BINUS |
| 1370 | 14.28 – 14.36 | Surahmat, Alfred Tenggono | Analysis Of Server Virtualization Service Performance Using Citrix Xenserver" | Palcomtech |
| 1372 | 14.36 – 14.44 | Suparto Darudiato, Eliando Eliando | The Pattern Of The Marketing Ground Coffee Beans Using Decision Support System | Matana University |





| 1375 | 14.44 – 14.52 | Dewi Wardani, Achmad Khusyaini | The Utilization Of Ontology In Association Rule | Universitas Sebelas Maret |
|------|---------------|---|---|------------------------------|
| 1376 | 14.52– 15.00 | Wardani | The Evaluation Of Semantic Mapping | Universitas Sebelas Maret |
| 1377 | 15.00 – 15.08 | Mardiana and Eka Hartati | Measurement of User Satisfaction Level on Implementation of SISKEUDES Application | Palcomtech |
| | 15.08 – 15.16 | | BREAK | |
| 1388 | 15.16 – 15.24 | Aditya P. P. Prasetyo, Rendyansyah, Sri Desy Siswanti, Siti Nurmaini, Abdurahman | Garbage Collector Robot (Gacobot) Design For Dry Waste Distribution | Universitas Sriwijaya |
| 1396 | 15.24 – 15.32 | Rezania Agramanisti Azdy, Febriyanti Darnis | Use Of Haversine Formula In Finding Distance Between Temporary Shelter And Waste End Processing Sites | Palcomtech |
| 1676 | 15.32 – 15.40 | Indri Ariyanti, Yusniarti Yusniarti, Sri Wahyuni | Geographic Information Systems Search Test Location For Admission Of New Students In Sriwijaya State Polytechnic Using Location Based Service (LBS) Method | Polsri |
| 1564 | 15.40– 15.48 | Madora, Yusniarti, Wahyuningrum, Noval | Book Catalog Information System In The Reading Room (Library) Web-Based Polytechnic Informatics Management Department Sriwijaya | Polsri |
| 1446 | 15.48 – 15.56 | R Passarella, A S Nugroho, and F N Arsyad | Pull-down Fitness Technique Analysis using Motion Capture | Universitas Sriwijaya |
| 1721 | 15.56 – 16.04 | Meiyi Darlies, Ema Laila, Ali Firdaus, Muhamad Erwin | Analysis of EDFAT Methods in Photography Techniques | Polsri |
| 1358 | 16.04– 16.12 | Heru Fahlevi, Teuku Roli Ilhamsyah Putra and Rina Suryani Oktari | Predicting Cost Recovery Rate of Ischemic Stroke Patients: A Potential Application of Big Data Analysis in Hospital | Universitas Syiah Kuala |





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Theme : TRACK 2 (Computer Science, Computer Engineering, Information System)

Room : ROOM 6 (Electra 2, 2nd Floor)

Moderator : Ervi Cofriyanti, M.TI/Ozkar Firdausi Hamzah, S.T., M.T., M. Sc

Time : 13.00 - 16.12WIB

Articles : 23

| ID | Time | Authors | Title | Affiliation |
|------|---------------|--|---|------------------------------------|
| 1448 | 13.00 – 13.08 | Yesi Sriyeni and Maria Veronica | Development Analysis For Numbers And Colors Learning Media | Palcomtech |
| 1455 | 13.08 – 13.16 | Heki Aprianto and Alan Saputro | Animation Design as an Educational Media of Adolescents' Social Behavior Deviation' has been accepted with major revision | Palcomtech |
| 1458 | 13.16 - 13.24 | Syahrul, Pertiwi | Designing Mobile Based User Interface for Promotion of Lakeur Craft Art Application at Balaputra Dewa State Museum | Palcomtech |
| 1464 | 13.24 – 13.32 | Lindawati, I Salamah, Asriyadi, M Fadhli | Prototype of RFID-Based Parking Slot Availability Detection System | Polsri |
| 1466 | 13.32 – 13.40 | DS Sri, FP Rian, Z Ahmad | Mobile Robot Motion Control Based on Static Hand Gesture | Universitas Sriwijaya |
| 1473 | 13.40 – 13.48 | Adelin Adelin, Febria Sri Handayani | Object-Based Design and Modeling Batik Nusantara Catalog Wibatara.com | Palcomtech |
| 1548 | 13.48 – 13.56 | Al Farissi, Halina Mohamed Dahlan, Samsuryadi | Genetic Algorithm Based Feature Selection With Ensemble Methods For Student Academic Performance Prediction | Universitas Sriwijaya |
| 1673 | 13.56 – 14.04 | Suzan Agustri, Dana Indra Sensuse | Information System Strategy Planning in The Private Universities of South Sumatera | Universitas Indo Global Mandiri |
| 1577 | 14.04 – 14.12 | Kintan Rahayu, Leni Novianti, Meivi Kusnandar | Implementation Data Mining With K-Means Algorithm For Clustering Distribution Rabies Case Area In Palembang City | Polsri |
| 1630 | 14.12 – 14.20 | Farizal F | Engine replacement scheduling optimization using Data Mining | Universitas Indonesia |
| 1646 | 14.20 – 14.28 | D. Tri Octafian, Febrianty, Hendra Hadiwijaya | User Experience Analysis On Class I Lpka Palembang Filial E-School | Palcomtech Palembang |
| 1649 | 14.28 – 14.36 | Rika Sadariawati, A. Ari Gunawan, Meivi Kusnandar | Information System Of Student's Final Report And Final Assignment At State Polytechnic Of Sriwijaya With Android Based | Polsri |
| 1653 | 14.36 – 14.44 | Nita Novita, M. Aris Ganiardi, Indri Ariyanti, Delta Khairunnisa | Design Of Semester Exam Scheduling At The State Polytechnic Of Sriwijaya Application | Polsri |
| 1682 | 14.44 – 14.52 | Rike Sucihati, Ahmad Bahri Joni Malyan, Ervi Cofriyanti | Augmented Reality in the Registration Flow for Enterance Examination at State Polytechnic of Sriwijaya Based on Android | Polsri |
| 1683 | 14.52– 15.00 | Leni Novianti, Devi Sartika, Dewi Irmawati, Ienda Meiriska | Design and Build Application of Campus Parking Area for State Polytechnic of Sriwijaya Based on Smartphone | Polsri |
| 1688 | 15.00 – 15.08 | A.Bahri Joni M, Herlambang Saputra, Ahyar Supani, Indarto | Implementation Of Biometric Fingerprint Barbasis Security Doors With Attendance Database On Sriwijaya State Polytechnic | Polsri |





| | 15.08 – 15.16 | | BREAK | |
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| 1704 | 15.16 – 15.24 | Ahyar Supani, Yuli Adriani | Designing and Applying Flood Early Warning System with Fuzzy Logic Based on Rainfall and Water Level for Special of Palembang City | Polsri |
| 1707 | 15.24 – 15.32 | Huda Ubaya and Ria Siti Juairiah | Performance of RUS and SMOTE Method on Twitter Spam Data Using Random Forest | Universitas Sriwijaya |
| 1432 | 15.32 – 15.40 | Sanjaya, Kurniawan, Saputra, Azhar | Mobile Android Based Geographic Information System (GIS) Software Development for Tourist Destination Seekers in Palembang City | Universitas Sriwijaya |
| 1441 | 15.40– 15.48 | M. Rudi Sanjaya, Dedy Kurniawan, Ariansyah Saputra, Iman Saladin B Azhar | GIS Android mobile based Software Development for Tourism Objects, Public Places list, Transportations list, and Culinary Places list Using Usability Measurement | Universitas Sriwijaya |
| 1727 | 15.48 – 15.56 | Firdaus, Andre Herviant Julianoa, Naufal Rachmatullaha, Sarifah Putri Rafflesiab, Dinna Yunika Hardiyantib, Ahmad Zarkasi, Ferlita Pratiwi Arisantia, Siti Nurmaini | The impact of Negative to Positive Training Dataset Ratio on Atrial Fibrillation Classification Machine Learning Algorithms Performance | Universitas Sriwijaya |
| 1791 | 15.56 – 16.04 | Yordan Hasan, Abdurrahman, Yudi Wijanarko, Selamat Muslimin, Renny Maulidda | Analysis of ID Card Implementation as the Automatic Door Lock Security in Electrical Engineering Department | Polsri |
| 1785 | 16.04– 16.12 | Annisa Darmawahyuni, Siti Nurmaini, M Naufal Rachmatullah | Analysis of Classifier Performance on ECG Interpretation for Precision Medicine: Which performance metrics should we use? | Universitas Sriwijaya |





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Theme : TRACK 3 (Management Economics, Business Administration, Accounting)

Room : ROOM 7 (Diamante 1, Ball Room, M Floor)

Moderator : Doeslohal Djumrianti, S.E.MIS., Ph.D/Dr. Sari Lestari ZR

Time : 13.08 -15.48 WIB

Articles : 20

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| 1718 | 13.00 – 13.08 | Dewi Fadila, Hendra Satrawinata, Mariskha Z, Riska Maulana | Impact of Learning, Socialization and Financial Lifestyle on Student' Intention to Invest in Capital Market | Polsri |
| 1695 | 13.08 – 13.16 | Sulaiman, Bramantyo Muhamad Pangestu, Bainil Yulina, Siska Aprianti | The Effect Of Capital Readiness And E- Commerce Utilization On The Competitiveness Of Micro Small And Medium Enterprises (MSMEs) Woven Palembang | Polsri |
| 1381 | 13.16 - 13.24 | Zulkifli, Martini, Hartati, Widyastuti | Dimensions Of Village Expenditure In Development Sector | Polsri |
| 1394 | 13.24 – 13.32 | Dwi Eva Nirmagustina, Sri Handayani and Luluk Irawati | Comparison Analysis Of Organic Rice And An Organic Rice Added Value Approach | Politeknik Negeri Lampung |
| 1440 | 13.32 – 13.40 | Amalia | Analysis Of Political Connection, Profitability And Capital Intensity Against Tax Avoidance In Coal Companies On The Indonesia Stock Exchange | Palcomtech |
| 1697 | 13.40 – 13.48 | Sari Lestari, Zainal Ridho, Neneng Miskiyah, Muhammad Anshari, Hadi Jauhari ¹ | Human Resource Role and Online Strategy | Polsri |
| 1476 | 13.48 – 13.56 | Munparidi, L.Suhairi Hazizma & A.Jalaludin Sayuti | Relationship Model among Employee Engagement, Organizational Commitment and Employee Performance | Polsri |
| 1488 | 13.56 – 14.04 | Gst Ayu Oka Widarti, Esya Alhadi, Elvia Zahara, Titi Andriani | The Effect of Customer Orientation and Service Quality on Trust and Customer Loyalty | Polsri |
| 1490 | 14.04 – 14.12 | Fetty maretha, yulia pebrianti, rini rini, lisnini | Model of Empowerment as Strategies for Women SMEs Entrepreneurs Competitiveness in Palembang | Polsri |
| 1532 | 14.12 – 14.20 | Koesharijadi, Hardiyansyah and Muhamad Akbar | E-Government Policy, Leadership Commitment, Apparatus Resources Development, And Their Implications On Public Service Performance | Universitas Bina Darma |
| 1537 | 14.20 – 14.28 | Evada Dewata, Yuli Antina Aryani, Yuliana Sari, Aladin | Industrial Clasterization To Improve The Competitiveness Of Small And Medium Industries In The City Of Palembang | Polsri |
| 1542 | 14.28 – 14.36 | Sopian.A.R, Periansya, Ardiyan Natoen, Indra Satriawan | The Influence Of Competence, Leadership, Motivation Work Impact On The Commitment Of Civil State Apparatus In The Office Of The Governor South Sumatera Province | Polsri |





| 1549 | 14.36 – 14.44 | Lupikawaty, Alhamdari, Bustan | Analysis Method Economic Value Added (EVA) of Cosmetics Companies Listed on the Stock Exchange Period 2013-2017 | Polsri |
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| 1620 | 14.44 – 14.52 | Anggeraini Oktarida, Eka Jumarni Fithri, Lambok Vera Riama, Sri Hartati | Determinants The Quality Regional Finansial Statement | Polsri |
| 1538 | 14.52–15.00 | Susi Ardiani, Sarikadarwati, Henny Yulsiati, Sandrayati | The Effect Of Hospital Image And Service Quality On Customer Loyalty Through Customer Satisfaction As Intervening Variables In Siti Khadijah Hospital In Palembang City | Polsri |
| 1561 | 15.00 – 15.08 | Yevi Dwitayanti, Maria Maria, Nurhasanah Nurhasanah, Rosy Armaini | The Impact Of Village Fund Program Implementation Towards Society Welfare In Indonesia | Polsri |
| | 15.08 – 15.16 | | BREAK | |
| 1687 | 15.16 – 15.24 | Desi Indriasari, Kartika Rachma Sari, Kiagus Zainal Arifin, Choiruddin | Determinants of Village Financial Management Accountability (Study of Villages in Pampangan Sub-District, OKI Regency and Rambutan Sub-District, Banyuasin Regency) | Polsri |
| 1712 | 15.24 – 15.32 | Elisa, Marieska Lupikawaty, Yusleli Herawati, Purwati | Evaluation of Sales Price within Calculation Cost of Good Production SMEs Pempek Ilir Barat I and Bukit Kecil District Palembang | Polsri |
| 1686 | 15.32 – 15.40 | M. Husni Mubarok, Faridah, Nelly Masnila | The Effect Of Taxpayer Awareness And Tax Sanctions On Compliance In Paying Land And Building Taxes In Bukit Kecil Sub- District Of Palembang | Polsri |
| 1644 | 15.40– 15.48 | M. Yusuf, Yusnizal Firdaus, Markoni Badri, AlHusori | The Environmental Compliance Management Of Palm Oil Plantation In Ogran Komering Ilir Regency, Sumatera Selatan, Indonesia | Polsri |





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Theme : TRACK 3 (Management Economics, Business Administration, Accounting)

Room : ROOM 8 (Diamante 2, Ball Room, M Floor)

Moderator : Dr. Welly / Heri Setiawan, MM

Time : 13.00 – 15.56 WIB

Articles : 21

| ID | Time | Authors | Title | Affiliation |
|------|---------------|---|---|--------------------------|
| 1436 | 13.00 – 13.08 | Nurul Aryanti, Welly Ardiansyah, Murwani Ujihanti | Attitude, Motivation, and Parental Involvement towards Students' Reading Comprehension Achievement | Polsri |
| 1457 | 13.08 – 13.16 | Irmeilyana Irmeilyana, Ali Amran | 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 | Universitas Sriwijaya |
| 1509 | 13.16 - 13.24 | Wustari L. Mangundjaya | Testing the Role of Charismatic Leadership, Psychological Climate, and OCB on Resilience | Universitas Indonesia |
| 1512 | 13.24 – 13.32 | Hermina Agustina Mahendrati, Wustari Mangundjaya | Individual Readiness For Change and Affective Commitment To Change: The Mediation Effect Of Technology Readiness On Public Sector | Universitas Indonesia |
| 1515 | 13.32 – 13.40 | Dwi Andriani Puspitasari, Wustari L Mangundjaya | Leader-Member Exchange and Affective Commitment to Change: Mediating Role of Change Self-Efficacy | Universitas Indonesia |
| 1516 | 13.40 – 13.48 | Susilo, Wustari L. Mangundjaya ² | Testing Mediation of Psychological Empowerment, Work Engagement to Affective Commitment to Change | Universitas Indonesia |
| 1547 | 13.48 – 13.56 | Suroso, Wasitoh Meirani, Muhammad Erwin, Ayu Puspasari | Aim, Concept, and Objectives of Education in Islam | Polsri |
| 1550 | 13.56 – 14.04 | Yurnalis, Wustari Mangundjaya | Testing the Impacts of Organizational Justice on Affective Commitment to Change with Work Engagement as Mediator | Universitas Indonesia |
| 1559 | 14.04 – 14.12 | Eliyeny, Herman,Sunani, Muhammad Nadjmuddin | The Effect Of Directed Reading - Thinking Activity On Students' Critical Thinking Abilities | Polsri |
| 1563 | 14.12 – 14.20 | Darmaliana, Risnawati, Risa, Sri Endah Kusmartini | The Development Of Teaching Material Speaking 2 Based On Communicative Approach For Students In English Department Of Sriwijaya Palembang State Politechnic | Polsri |
| 1575 | 14.20 – 14.28 | Heri Setiawan, Taufiq Marwa, Zakaria Wahab, Muchsin Sagaf | Exploring Linkage among Experiential Value, Destination Image and Revisit Intention in Natural-based Tourism | Polsri |
| 1589 | 14.28 – 14.36 | Munaja Rahma, Zakaria, Moehammad Ridhwan | Students' Perception of English Blended Learning in State Polytechnic of Sriwijaya | Polsri |
| 1612 | 14.36 – 14.44 | Pridson Mandiangan, Desloehal Djumrianti, Hanifati | Online Transportation Technology and Women's Driver Communication Skills | Polsri |





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| 1618 | 14.44 – 14.52 | Zulkifli zulkifli, nian evawati, koryati koryati | The Importance Of The Language Experience Approach (Lea) In Teaching Reading Comprehension To The Third Semester Of Engineering Students In State Polytechnic Of Sriwijaya | Polsri |
| 1631 | 14.52–15.00 | Paisal Paisal, Afrizawati Afrizawati, Divianto Divianto, Yahya | The Effect Of Organization Climate On Performance With Job Satisfaction As An Intervening Variable | Polsri |
| 1652 | 15.00 – 15.08 | Suryati, Ahmad Sanmorino | The clustering of paddy fields in the province of South Sumatera as an input for the government in determining policy | UIGM |
| | 15.08 – 15.16 | | BREAK | |
| 1671 | 15.16 – 15.24 | Deri Darfin, Zulkarnaini, Ridwan Effendi, Robinson, | The Public Service Quality Of The Library Services At The Library Unit Of State Polytechnic Of Sriwijaya | Polsri |
| 1714 | 15.24 – 15.32 | Sri Gustiani, Yusri, Tiur Simanjuntak, Evi Agustinasari | The Effectiveness of Blended Learning Approach on Essay Writing Subject | Polsri |
| 1717 | 15.32 – 15.40 | Hadi Winarko, Zaliah, Aimi | Analysis of Student Services at State Polytechnic of Sriwijaya | Polsri |
| 1467 | 15.40 – 15.48 | Setiawan, Hamid, Bustan, Ummasyroh | The Effect of Culinary Knowledge and Culinary Experience on Local Culinary Attractiveness | Polsri |
| 1693 | 15.48 – 16.56 | Muhamad Erwin, Carlos RS, Irawan Rusnadi, Ahmad Zamheri, Dicky Seprianto, Alan Novi Tompunu, Meiyi Darlies | 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 | Polsri |





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Theme : TRACK 1 (Engineering and Science)

Room : ROOM 12 (Diamante 6, Ball Room, M Floor)

Moderator : HettyMeileni, S.Kom, M.TI/ Alan Novi Tompunu, S.T., M.T.

Time : 13.00-14.36 WIB

Articles : 12

| | | Hotty Moiler: Cir.d- | | |
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| 1557 | 13.00 – 13.08 | Hetty Meileni, Cindy Indah Pratiwi, Ienda Meiriska, and Desi Apriyanty | Information System Of Small And Medium Business In Palembang City | Polsri |
| 1560 | 13.08 – 13.16 | Hetty Meileni, Diky Juniansyah Putra, Desi Apriyanti, Indra Satriadi | Inventory Of Goods Data Processing Using The Economic Order Quantity (Eoq) Method | Polsri |
| 1362 | 13.16 - 13.24 | Emilia Hesti, Sholihin, Adewasti, Sarjana | Internet Of Thing For The Robot Comando Commandation System | Polsri |
| 1439 | 13.24 – 13.32 | Idha Silviyati, Nyayu Zubaidah, Jaksen M.Amin, Endang Supraptiah, Rizka Dwi Utami, Iqbal Ramadhan | The Effect Of Addition Of High Density Poly Ethylene (HDPE) As Binder On Hebel Light Brick (CELCON) | Polsri |
| 1640 | 13.32 – 13.40 | Ibnu Ziad, Ali Nudin, Jon Endri, Ciksadan | Implementation Of Fingerprint Control In Majors Electrical Engineering Using Arduino | Polsri |
| 1672 | 13.40 – 13.48 | Erlinawati, A. Zikri, Sutini PL., Agus M., Fathona S. | Biodiesel Production from Bintaro (Cerbera Manghas L) Seeds with Potassium Hydroxide as Catalyst | Polsri |
| 1677 | 13.48 – 13.56 | Djaka Suhirkam, B Hodayat Fuady, Lina Flaviana, Suhadi | The Copper Fiber On Compressive Strength And Elastic Modulus On Concrete FC'25 | Polsri |
| 1679 | 13.56 – 14.04 | Irawan Hadi, Abdul Rakhman, Nasron, Martinus Mujur Rose | Information System Feature Development of Telecommunications Engineering Study Program to Support the New Accreditation and the New Curriculum System | Polsri |
| 1696 | 14.04 – 14.12 | Didi Suryana, Almadora Anwar Sani, Azharuddin Azharuddin, Safei Safei, Indra HB | Grip Tool Cnc Mill 3A To Get 12 Sides Of The Elbow On Results Induction Electrical Furnance Casting | Polsri |
| 1698 | 14.12 – 14.20 | Slamet Widodo, M.Miftakhul Amin, Adi Sutrisman,Ervi Cofriyanti, Maulani Puji R | Implementation of Parking Portal Door Security System Using RFID and Password Based on Microcontrollers in Sriwijaya State Polytechnic | Polsri |
| 1798 | 14.20 – 14.28 | Sairul Effendi, Firdaus, Karmin, Romli, Ozkar F. Homzah ¹ | Effects of Carburizing Processes on Nodular Cast Iron with Variations in Temperature, Time and Cooling System | Polsri |
| 1799 | 14.28 – 14.36 | Alan Novi Tompunu, Yulian Mirza, and Azwardi | Room Door Security System Using Microcontroller-Based E-KTP | Polsri |





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

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ABSTRACT

This research is conducted to know how competence, work motivation, leadership and commitment from civil apparatus to the responsibilities he carries in carrying out the task. The research itself was conducted with an explorative discourse approach using a sample of the state civil apparatus on the Office of the Governor of South Sumatera province. In this study, the analysis techniques used multiple linear regression, in addition, to carried out partial tests and F. From the results of analysis are known that the competency has no effect positive and significantly against the commitment of civil apparatus while the state And leadership have a positive and significant impact on the commitment of state civil apparatus. Furthermore, when tested simultaneously, it is known that the three variables are significantly influential. The conclusion of this research is the necessity of synchronization between competencies and the commitment of the civil apparatus of the state in carrying out government duties, especially in terms of competence so that the employees can realize the commitment and ultimately Employee performance.

Keywords: competence, motivation, leadership, commitment

1. INTRODUCTION

The good government is the peace of every Indonesian people as the manifestation of the 4th paragraph of the opening of the state Constitution of the Republic of Indonesia in 1945, which is to build a state that is as real, fair and prosperous. To realize the above, in need of state civil apparatus (ASN) or civil state apparatus is professional and free from the political and clean interests of the practice of corruption, collusion, and nepotism. As a servant and civil servants, the public administration of civilian apparatus must be able to be transparent and accountable in carrying out its functions. Besides being a community servant, the role of ASN is as a state servant in achieving the ideals of the nation.

In conducting the development of the civil apparatus of the state with the government regulation that in carrying out its role should work effectively, efficiently, discipline, professional and accountable so that the development in the way will be able to achieve with maximum (PP53/2015). The impact arising from the empowered work can bring positive results for the development results that have been poured in the regional medium-term Builders plan (RPJMD) by referring to the National Secondary Development Plan (RPJMN).

The work plan outlined in the RPJMD will be implemented by the State civil apparatus for successful development. To support the success of regional development, there is a dedicated bureaucratic performance on each regional device organization (OPD). To produce optimal performance, it is required that the continuous reform is implemented which is an element of

the non-physical development of a government. When the current accuracy and objectives in the work program are considered a problem.

Good governance will result in a good government performance that must be supported by a qualified organization concerning factors such as human resources, capital, machinery, and other resources. But this performance can be realized if there is a high commitment to running the organization. A high commitment will be realized if each state apparatus can understand the objectives of the Organization. With optimal commitment, the preservation will be able to produce optimal performance.

In addition to the high commitment, a good government needs to support the leadership and motivation of the country's apparatus. Leadership and good commitment need adequate competence to achieve the expected performance. Current regional governments by central government regulations are allowed to provide income improvement allowances as an effort to increase revenues. Success in the implementation of local government work is not separated from competence, commitment and leadership as well as the motivation of civil servants [1], [2] which is owned by the officer and commitment as part, not In performance. Competence [3] can give added value to the work done by the officers in achieving the desired performance as well as the leadership [4] that can be a good nurturing and directing subordinates in measurable performance achievements including leaders can motivate subordinates to work seriously including the employee's commitment to perform their work selflessly.

From the data obtained that currently indicates that the quality of public service has not shown the optimal figure visible from the new public satisfaction index at the value

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of B +, the new Community Satisfaction Index in value B. In addition to being viewed from the accountability Performance of the Government of South Sumatera is also not optimal where the value of SAKIP District/city average B, and CC, there is no A. This indicates that the community has not gained any satisfaction in dealing with local government agencies. Not optimal service also seen in research [5] which is due to the culture of discipline and incentives.

This research aims to see if the competency factor, leadership, motivation affect the commitment of the State civil apparatus that is the cause of the low quality of public service in the office of the Governor of South Sumatra province.

2. LITERATURE REVIEW

2.1. Leadership

In the theory of leadership, it is said the process of influencing people can be achieved by through self-motivation. That leadership is a person's ability to influence others to achieve its objectives [6]. Therefore, leadership if widely interpreted include influencing processes in determining the objectives of the organization, motivating the behavior of the followers to achieve the objectives, influencing to improve the group and its culture in a matching [7] That the leadership is meant as a process that can direct and also affect other parties who have a job relationship.

To achieve the goal in the leadership of at least three things to note that the first leaders involve others either subordinates or their followers, the second is distributing the power he held and the third able to Influence and mobilize their followers in various ways.

Unwittingly that every leader carries his style, where the style is a norm he uses when it affects the attitudes of others including his subordinates. At present, there are at least two approaches in leadership[7] [8] First approach to transactional leadership (transactional leadership) and Transformational leadership.

A transformational leader's approach is more inclined towards evaluating the ability and potential of each subordinate to perform tasks and at the same time see the possibility to broaden subordinate responsibilities and authority in the future. Conversely, transactional leaders are subject to achievement of goals or objectives but do not seek to develop subordinate responsibilities and authority for subordinate progress. Thus, the difference between the two approaches above. The transformational leader can be interpreted to unite all of his subordinates and able to change the comfort, attitudes and personal goals of each subordinate to achieve the goal, even exceeding the set goals [9].

2.2. Competence

Competence [10] [11] can be interpreted as an ability that is possessed by someone in carrying out its work or tasks based on knowledge, skills and work attitudes required by the job. Competence can be interpreted as an ability of intellectual ability to solve a problem. Also, if further studied that competence is the basic characteristics that a person needs to have that can directly influence the capacity of performance in completing the task at its own. Likewise [12] hinting that one's workability should refer to the individual capacity to work on the various tasks entrusted to him.

2.3. Commitment

Commitment [11] as a relative force for the individual to its organization. The relative strength that exists is a manifestation of a strong relationship with the love of the organization. Each worker must be able to identify an organization with the intent and purpose and hope to remain part of the member of the organization.

Meyer, Allen, and Smith [14] mention three-dimensional commitments in organizing, namely Affective Commitment, Continuance Commitment, and Normative Commitment. These three dimensions relate well to members ' emotional relationships to their organization, identify with organizations, and member involvement with activities in the Organization then awareness of organizational members so that they will suffer losses If leaving the organization and the latter is describing a feeling of attachment to continue to be in the organization. Members of the organization with the high normative commitment will continue to be members in the organization because it feels he must be in organization. Employees who have a high commitment to an organization will have the loyalty and sense of having an organization; Have a strong desire to keep joining the organization; Then engaged earnestly in his work, and displaying behaviors that are appropriate for the organization's purpose. These three commitments belong to the realm of attitudes or affective commitments that relate to the extent to which a person feels his or her personal goals and objectives are following the objectives of the Organization.

2.4. Motivation

Motivation means to move or movement [15][16], motivation means a condition of individual will in the NFM to move or cause a person to do a deed/activity, which takes place Consciously. Also as a force of resources that move and control human attitudes. The motivation of an effort that can encourage a person to take the desired action, while the motive as the impulse of a person to do. Because a person's behavior tends to be



oriented toward purpose and encouraged by the desire to achieve a particular goal.

It can be said that motivation is a thrust that is governed by purpose and rarely appears in the void. Words of need, desire, desire, and encouragement are all similar to motives, which are the origin of the word of motivation. Understanding motivation is very important because performance, reaction to compensation, and other human resources issues are influenced by and influence motivation. Motivation is a complex problem in the organization because the needs and desires of each member of the organization differ from one another. This is different because each member of an organization is uniquely biologically and psychologically, and develops based on different learning processes.

The success of an organization is believed to depend heavily on its employees. If you do not have a concern for the job, then the officer will not try to do the job appropriately and productively. Motivation to be the driving force to work and Excel, and which is the basis of designing work to be interesting, so that employees will do their job.

3. RESEARCH METHODS

3.1. Types of research

The type of research used in this study is quantitative research. Quantitative research is one of the types of research used to examine certain populations or samples with quantitative data statistics and aims to test a predetermined hypothesis. This research is conducted by providing questionnaires directly to the civil apparatus of the state in South Sumatera province.

3.2. Population and Sample

The population in this study are ASN (state civil apparatus) in the office of the Governor of South Sumatera province. In this study, the technique is used to determine the sample through the Purposive sampling method. The purposive sampling method is a sampling technique with certain criteria. The criteria in this study were that the respondents were the parties directly involved in the activities of personnel, finance and other technical activities where the respondents have educated at least strata one. The number of questionnaires were distributed for 130 respondents and returning as many as 116 respondents.

3.3. Variable Research

Variables in this study consist of independent variables and dependent variables. Independent variables in this

study are competence, leadership, motivation. While the dependencies variable is commitment.

3.4. Research Model

This Model of research uses multiple linear regression. The models in this study are:

Y = A + b X1 + b X2 + b X3 + E

Description:

Y = Commitment

A = Constants

b = Coefficient of regression

X1 = Competency Variable

X2 = motivation Variable

X3 = Leadership Variables

E = Error

3.5. Data Analysis Techniques

The method of data analysis techniques in this study are:

- 1. Descriptive statistics
- 2. Classic Assumption Test
- 3. Test normality
- 4. Autocorrelation Test
- 5. Multicolinearity Test
- 6. Heteroscadasticity Test
- 7. Coefficient of determination
- 8. Hypothesis Test
- 9. Test statistics T
- 10. Test statistics F

4. RESULTS AND DISCUSSION

4.1. Test normality

Test data normality is used to know the data is distributed normally or not. This test uses the graphing method and statistical test method of One-Sample Kolmogorov Smirnov. The graph method is to see the spread of data on the diagonal source on the Normal P-P Plot of regression standardized residual graph. As the basis of its decision, if the dots spread around the line and follow the diagonal line, the residual value is normal. One Sample test method Kolmogorov Smirnov with significance value > 0.05 then data distribution is normal, and if the significance of the < 0.05 is not a normal distribution data.

Data normality testing is performed by viewing the data spread (dots) on the diagonal axis of the graph. The basis of decision making is that if the data spread around the diagonal line and follows the direction of the diagonal line, then the regression model meets the normality assumption. In the 4.1 images it appears that the dots are spreading



around the diagonal line, as well as the spread following the direction of the diagonal line.

So it can be concluded that based on the graph probability plot, the regression model fulfills the assumption of normality which means that the data in this study comes from a population that is normally distributed, so this regression model deserves to be used to predict Successful commitment based on its independent variable input: competence, motivation, and leadership.

Besides, the test results of normality than shown by the Normal graph of P-P Plot of regression standardized residual and Normal Histogram chart can also be supported using the Kolmogorov-Smirnov test. The results of One-Sample test Kolmogorov-Smirnov Test in table 1 indicates that the value of Asymp. SIG (2-tailed) residual in this study has a value greater than 0.05 which amounted

to 0.092 for competency variables, motivation, leadership, and commitment. Thus the regression model in the study has been distributed normally so that the available data can be used for regression analysis and can be concluded that regression models on this study have fulfilled the assumption of normality.

4.2. Multicolinearity Test

The multicolinearity test aims to test whether in a regression model found the correlation between independent variables. A good regression model should not correlate with each free variable. A good regression model should not correlate with each free variable.

Tabel 1 Multicollonierity Test

| | Coefficients ^a | | | | | | | |
|-------|---|---|------------|------|-------|-------------------------|-----------|-------|
| | | Unstandardized Coefficients Standardized Coefficients | | | | Collinearity Statistics | | |
| Model | | В | Std. Error | Beta | T | Sig. | Tolerance | VIF |
| 1 | (Constant) | -3,448 | 6,112 | | -,564 | ,574 | | |
| | Competence | ,082 | ,077 | ,078 | 1,061 | ,291 | ,920 | 1,086 |
| | Motivation | ,632 | ,092 | ,523 | 6,887 | ,000 | ,862 | 1,160 |
| | Leadershp | ,254 | ,081 | ,248 | 3,147 | ,002 | ,801 | 1,248 |
| a. D | a. Dependent Variable: Total Commitment | | | | | | | |

Source: Processed Data, 2019.

According to table 1, it can be noted that the X1 variable tolerance value is 0.920 or more than 0.10 and the variable X1 VIF value is 1.086 or smaller than 10. The tolerance variable value of X2 is 0.862 or greater than 0.10 and the value of the VIF variable X2 is 1.160 or smaller than 10. The value tolerance of the X3 variable is 0.801 or greater than 0.10 and the VIF variable X3 value is 1.248 or smaller than 10. It can be concluded that there is no Multicolinearity problem between the variables in this study.

4.3. Heteroscedasticity test

Heteroscedasticity is a condition in which a regression model occurs a variant inequality of the residual on one observation to another observation. The heteroscedasticity test is seen with a plot graph (scatterplot) in which the spread of the dots caused randomly forms, does not form a specific pattern and the spread direction is above or below 0 on the Y-axis. If the point spread forms a specific pattern, heteroscedasticity occurs.

From the calculate it can be known that the dots are spreading randomly and not forming certain patterns that are orderly and clear. The dots spread above and below the number 0 on the Y-axis. So it can be concluded that there is no heteroscedasticity problem or in other words does not occur similarity variant of the residual on one observation to another observation in the model Regression.

4.4. Multiple linear regression analysis

Based on tabel 1 the calculation of multiple linear regression between human resources competency, motivation, and leadership with SPSS program (Statistical Product and Service Solution) obtained the following results that the regression equation can be interpreted:

- 1. The constant value of 3, 448 indicate that if the independent variable of competence, motivation, and leadership is 0, then the commitment of -3.448.
- 2. Variable regression coefficient competence of, 0.082 positive value indicates the relationship between the competency variable and the commitment variable which means if the value of competency variable is up by 1 then the value of commitment will rise Amounting to, 082%. Assuming other free variables are constant.
- 3. Variable regression coefficients of motivation, 0. 632 positive value indicates a direct connection between the variable motivation with commitment variable which means if the value of the motivation variable rises by 1 then the value of commitment will increase by, 632 %. Assuming other free variables are constant.
- 4. The variable regression coefficient of the leadership of 0. 254 positive value indicates a direct relationship between the leadership variable and the commitment variable which means if the value of leadership variables rises by 1 then the value of commitment will



rise Amounting to, 254%. Assuming other free variables are constant.

4.5. Coefficient of determination test (R^2)

Table 2 Coefficient of determination test Result (R^2)

| Model Summary ^b | | | | | | |
|----------------------------|-------|-------------------|----------------------------|---------------|-------|--|
| Model R R Square | | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson | | |
| 1 | ,667ª | ,444 | ,429 | 3,717 | 1,409 | |

a. Predictors: (Constant), Competence, Motivation, Leadership

b. Dependent Variable: Commitment Source: Processed Data, 2019.

Based on the calculate it is known that multiple regression test results are obtained a double correlation coefficient (R) of, 667 or as of 66.7%, and an R2 value of 0.444. Thus the magnitude of influence given by the variable of competence, motivation, and leadership is 44.4%. While the remaining 55.6% is influenced by other factors that are not examined in this study which is not mentioned. The Adjusted value of R Square is 429. It also demonstrates the contributing influence of competence, motivation, and leadership variables by 42.9%. While the remaining 57.1% is influenced by other factors that are not examined in this study which is not mentioned

4.6. Hypothesis Test

4.6.1. Partial significance test (test-T)

Partial testing (test-t) of each independent variable: competence, motivation, and leadership are conducted to test acceptable or rejection a proposed hypothesis. The result of the regression output with SPSS will show the count and its significance values.

The significance of each variable can be seen from the T-count and T-table values of each X variable. If the value of T count > This then individually (partial), the variable x can be expressed to have a significant effect on the variable Y, and if the value of T count < The variable X individually does not have a significant effect on the Y variables. Based on table 1 shows that for the variable competence, Motives, and leadership, each is:

1. Hypothesis 1 Testing (competence)
From the output, SPSS obtained T count of 1,061. To specify a searchable query at significance 0.05/2 = 0.025 (2-sided test) with a degree of freedom DF = N-K-1 or 116-3-1 = 112 (n is the amount of data and K is the number of independent variables). Results are obtained for a This of 1,9812/-1,982 (see the Statistics table). Because the value of < T count (1.982 < 1.061) then H1 is rejected. Based on significance, if the significance of < 0.05 then H1 is accepted, and if the

significance of > 0.05 then H1 is rejected. Because of the significance on the T-test more than 0.05 (0.291 >

0.05) then H1 is rejected. So can be obtained the value of T count 1,982 with a significance value of 0.291, then it can be concluded that the competency is partially no effect and not significant to the quality of commitment.

2. Hypothesis 2 Testing (motivation)
From the output, SPSS obtained T count of 6.887. To specify a searchable query at significance 0.05/2 = 0.025 (2-sided test) with a degree of freedom DF = N-K-1 or 116-3-1 = 112 (n is the amount of data and K is the number of independent variables). Results are obtained for a This of 1,982/-1,982 (see the Statistics table). Because the value of T count > This (6.887 > 1.982) then H2 is accepted. Based on significance, if the significance of the < 0.05 then H2 is accepted, and if the significance of > 0.05 then H2 is rejected. Because of the significance on the T-test is less than 0.05 (0.000 < 0.05) then H2 is acceptable. So it can be obtained the value of T count 6.887 with a significance value of 0.000, then it can be concluded that the

to the commitment.

3. Hypothesis 3 Testing (leadership)
From the output, SPSS obtained T count of 3.147. To specify a searchable query at significance 0.05/2 = 0.025 (2-sided test) with a degree of freedom DF = N-K-1 or 116-3-1 = 112 (n is the amount of data and K is the number of independent variables). Results are obtained for a This of 1,982/-1,982 (see the Statistics table). Because the value of T count > This (3.147 > 1.981) then the H3 is accepted.

motivation partially influential positive and significant

Based on significance, if the significance of the < 0.05 then the H3 is acceptable, and if the significance > 0.05 then the H3 is rejected. Because of the significance on the T-test less than,002 (,002 < 0.05) then the H3 is accepted. So can be obtained T count value of 3, 147with the significance value of,002, then it can be concluded that the leadership partially influential positive and significant to the commitment.



4.6.2. Simultaneous significance test (test-F)

The F test is essentially used to indicate whether all independent variables included in the research model have a simultaneous influence or together against the dependent

variable. If the level of significance is < 0.05 and F count is more > than f table, it can be inferred there is a shared influence between the independent variables (X) of the dependent variable (Y).

Table 3 Simultaneous significance test (test-F)

| ANOVA ^a | | | | | | | | |
|---|------------|----------------|-----|-------------|--------|-------------------|--|--|
| Model | | Sum of Squares | df | Mean Square | F | Sig. | | |
| 1 | Regression | 1237,012 | 3 | 412,337 | 29,844 | ,000 ^b | | |
| | Residual | 1547,436 | 112 | 13,816 | | | | |
| | Total | 2784,448 | 115 | | | | | |
| a. Dependent Variable: Commitment | | | | | | | | |
| b. Predictors: (Constant), Competence ,Motivation, Leadership | | | | | | | | |

Source: Processed Data, 2019.

Based on table 3 the F test results can be known f calculate by 29.844. To specify the f table, it can be seen in the statistics table at significance level 0.000 with DF 1 (number of variables-1) = 3, and DF 2 (N-K-1) or 116-3-1 = 112 (n is the amount of data and K is the number of independent variables). Results were obtained for F Table 1 of 2.685 (see in the Statistics table). Because F count > F Table (29.844 > 2.685) then H4 is accepted.

Based on significance, if the significance is <0.05 then H4 is accepted, and if significant >0.05 then H4 is rejected. Because of the significance in the F test less than 0.05 (0.000 < 0.05) then the H4 is acceptable. So it can be obtained the value of F count of 22.883 with a significance value of 0.000, then it can be concluded that competence, motivation, and leadership jointly positively and significantly influence the commitment.

4.7. Discussion

4.7.1. Effect of competency on quality of commitment

Based on the results of multiple regression analyses showed that the value of a regression coefficient indicates a value of departure so that it can be interpreted that there is no relationship between competence and commitment. It is based also on the results of the hypothesis testing, the T count value for the competency variable is 1.061 when compared to the value of the This is 1.982 and the value of significance, 291 > 0.05. Therefore, the < This T count can be concluded that the competency variables have no positive and insignificant effect on the commitments. This means that H1 is rejected.

The results of a relationship strength analysis between dependent variables and independent variables or analyses to find out how large the free variables are to explain the bound variables, it is known that the coefficient of determination of Adjusted R Square of 0.444. This value means that a 44.4% variable regarding commitment is influenced by the competency and the rest is influenced by other variables.

Descriptive statistical testing results also show the average respondent's response to a low-value competency variable. The value shows that the capacity of human resources in the office of the Governor of South Sumatra province is insufficient. So it can be concluded that the human resources of civil apparatus officials of the state governor of South Sumatra province, most still have no impact on the commitment despite its competence has been enough. ASN's commitment is one of the benchmarks for the governance of the area. A good ASN commitment can be determined by human resources in government organizations. Quality human resources, it will produce quality performance also. The success of an organization is not only influenced by human resources, but also human resources competence. Pujanira (2017) human resource competence is important in managing and presenting information, have good skills, a good attitude and carry out the task that is charged to him thereby maximizing his ability.

The results of this research are not in line with many previous studies that the competency positively affects the employee's commitment. This indicates that there is a problem in employee competence that should be positively influential. This finding indicates that there needs to be further mapping why competence has no positive effect on employee commitment.

4.7.2. Effect of motivation on ASN commitment

Based on the results of multiple regression analyses showed that the value of the regression coefficient indicates the positive value, so it can be interpreted that there is a relationship between the motivation to ASN commitments. It is based also on the results of the hypothesis testing, T count value for the variable



motivation is 6.887 when compared to the value of this is 1.982 and the value of significance 0.000 < 0.05. Then can be seen T count $\,>\,$ This so it can be concluded that the motivation variable has a positive and significant effect on commitment. This means that H2 is accepted.

The results of the analysis of the strength of the dependent variables relationship between independent variables or analyses to find out how large the free variables are to explain the bound variables, it is well known that the determinations of the Adjusted R Square are 42.9. This value means that a 42.9% variable about the ASN commitment is influenced by the motivation and the rest is influenced by other variables. Descriptive statistical testing results also show the average respondent's response to the motivation variable with a fairly high value. This means that in the dimension to motivation has fulfilled and well enough motivation of the ASN, but must remain improved again. The results of this study have not found any similarity of opinion on previous research, so it can be said this is new research.

4.7.2. Leadership influence on ASN commitment

Based on the results of multiple regression analyses indicate that the value of a regression coefficient shows positive value, so it can be interpreted that there is a relationship between leadership and commitment. It is based also on the results of the hypothesis testing, the T count value for the leadership variable is 3.147 when compared to the value of the This is 1.982 and the significance value is 0.002 < 0.05. Then can be seen T count > this so Can be concluded that the leadership variables are positive and significant to the commitments. This means that H3 is acceptable.

The results of the analysis of the strength of the relationship between dependent variables with independent variables or analyses to find out how large the free variables are to explain the bound variables, it is well known that the determinations of the Adjusted R Square are 0.429. This value means that a 42.9% variable regarding commitment is influenced by leadership and the rest is influenced by other variables. Descriptive statistical testing results also show the average respondent's response to a leadership variable with the highest value. It means leadership goes as it should and the leader has understood the principle in well but needs to be improved again.

D Influence of competence, motivation, and leadership of ASN commitment

Based on the results of simultaneous regression tests, the F count value is 29.844 when compared to the f table value is 2.685 and the significance value is 0.000 < 0.05. Then can be seen F count down > f table so it can be concluded that the variable Competence, motivation, and leadership have a positive and significant impact on commitment. This means that H4 is received. In carrying out the government wheel, each area did the disagreements to achieve governance apparatus with good governance.

Governance with good governance can be seen from the commitment of the State civil apparatus in carrying out its obligations that are not only based on job completion but the ASN has a greater responsibility to realize Competitive and powerful performance enhancement. According [17], Human resource is an important factor to be able to realize a quality apparatus. The success of an entity is not only influenced by its human resources but also the competence of its human resources. To realize the commitment of the civil apparatus of the state of quality required a high commitment to accelerate the lag of other regions. Important factor to be able to realize a quality apparatus. The success of an entity is not only influenced by its human resources but also the competence of its human resources. To realize the commitment of the civil apparatus of the state of quality required a high commitment to accelerate the lag of other regions.

5. CONCLUSION

This research aims to determine the competence, motivation, and leadership towards the commitment of the civil State apparatus in the office of the Governor of South Sumatera province. Based on the results of the research that has been outlined in the previous discussion the competence does not affect the ASN commitment in the office of the Governor of South Sumatera province. Motivation is positive and significant to the ASN commitment in the office of South Sumatera Province governor. Leadership is positive and significant to the ASN commitment in the office of South Sumatera Province governor. And the last competence, motivation, and leadership positively influence the ASN commitment to the office of the Governor of South Sumatera province. The advice in this study should be seen from the conclusion and the weakness can be described as follows: It is hoped that local leaders can pay attention to competence considering that the analysis has not had a positive relationship with the employee's commitment. Should be upgrading to the civil apparatus of the State to improve the competence of both knowledge, attitude, and skillset. In subsequent studies can add other independent variables that can influence the commitment and performance.

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