



# UMGESHC 2020

Universitas Muhammadiyah Gresik  
Engineering, Social Science, and Health  
International Conference

# ABSTRACT BOOK

“ ENHANCING HUMAN RESOURCES PRODUCTIVITY  
THROUGH ENGINEERING, SOCIAL SCIENCE, AND HEALTH  
DURING COVID-19 PANDEMIC ”

DECEMBER 9 - 10, 2020 || GRESIK - INDONESIA

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LEMBAGA PENELITIAN DAN PENGABDIAN KEPADA MASYARAKAT  
UNIVERSITAS MUHAMMADIYAH GRESIK

**UMGESHIC 2020 ABSTRACT BOOK**  
*Enhancing Human Resources Productivity through  
Engineering, Social, Science, and Health during  
Covid 19 Pandemic*

Penulis:

Nur Fauziah  
Sukaris  
Andi Rahmad Rahim  
Dodi Jaya Wardana  
Paulina  
Elly Ismiyah  
M. Zainuddin Fathoni  
Indra Gita Anugrah

**Lembaga Penelitian dan Pengabdian Kepada  
Masyarakat  
Universitas Muhammadiyah Gresik**

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**Penulis:**

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Andi Rahmad Rahim  
Dodi Jaya Wardana  
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Hak cipta dilindungi undang-undang

Dilarang memperbanyak karya tulis ini dalam bentuk dan dengan Cara apapun tanpa ijin tertulis dari penerbit

## Kata Pengantar

Assalamualaikum Warahmatulla Hiwabarokatuh

Pertama-tama, marilah kita bersyukur kepada Allah SWT, Yang Maha Kuasa, atas berkah-Nya, karena membimbing kita ke jalan yang benar, dan karena telah memberikan kita semua sarana dan kesempatan bersama di sini untuk menghadiri acara yang penuh makna ini.

Atas Nama Universitas Muhammadiyah Gresik, kami sangat tersanjung dan senang menyambut Bapak / Ibu di *International Conference on Engineering, Social, Science and Health, University of Muhammadiyah Gresik (UMGESHIC) 2020*. Kami juga ingin menyampaikan terima kasih kepada semua Keynote speaker yang telah menerima undangan kami untuk menjadi keynote speaker pada konferensi ini. Apresiasi juga kami sampaikan dan terima kasih kepada penyelenggara konferensi, co-host, semua reviewer, serta penulis atas kontribusinya dalam menyukseskan acara UMGESHIC 2020. Kami juga sangat mengapresiasi penerbitan kami, partner, IOP Publishing, atas dukungan kolaboratif mereka dalam menerbitkan prosiding konferensi.

Tujuan dari UMGESHIC 2020 adalah untuk memberikan beberapa peluang penelitian yang nantinya dapat diimplementasikan dan dikembangkan dalam kehidupan nyata, mengingat tantangan saat ini dalam Revolusi Industri 4.0, khususnya dalam Pengembangan Sumber Daya Manusia serta Teknologi Informasi. Melalui konferensi Internasional ini, kami ingin terlibat dengan Anda semua dalam dialog terbuka dan konstruktif tentang berbagai topik di bidang *Engineering, Social, Science and Health*. Apalagi wabah pandemi masih menjadi masalah yang menakutkan bagi hampir semua negara dan mempengaruhi semua aspek kehidupan manusia. Oleh karena itu, konferensi ini diharapkan dapat memberikan solusi atas permasalahan yang muncul.

Hadirin sekalian, akhirnya izinkan saya mengucapkan semoga Konferensi yang bermanfaat dan menyenangkan bagi Anda. Semoga acara ini sukses dan membawa kita lebih banyak ilmu dan manfaat kedepannya.

Gresik, Februari 2021

Rektor Universitas Muhammadiyah Gresik.

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## Message from the Rector

Assalamualaikum Warahmatulla Hiwabarokatuh

First of all, let us thank Allah SWT, the Almighty, for His blessing, for guiding us into the right path, and for granting us all means and opportunities together here to attend this meaningful occasion. On behalf of the University of Muhammadiyah Gresik, we are greatly honored and pleased to welcome you to Universitas Muhammadiyah Gresik Engineering, Social, Science and Health International Conference (UMGESHC) 2020. We would also like to extend our gratitude to all Keynote speakers who have accepted our invitation to become the invited keynote speakers of this conference. We would also like to give our appreciation and thank you to the conference organizers, co-host, all of the reviewers, as well as the authors for their contribution to making the success of the event of UMGESHIC 2020. We also greatly acknowledge our publishing partner, IOP Publishing, for their collaborative support in publishing the conference proceedings. The goal of UMGESHIC 2020 is to provide some research opportunities which can later be implemented and developed in the real-life, given the current challenges in this Industrial Revolution 4.0, especially in Human Resource Development as well as Information Technology. Through this International conference, we would like to engage with all of you in an open and constructive dialogue about various topics on Engineering, Social, Science as well as Health. Moreover, the pandemic breakout is still a frightening issue for almost all countries and affects all aspects of human life. Therefore this conference, hopefully, can bring some solutions to the problems arise from this. Ladies and gentlemen, finally allow me to wish you a fruitful and pleasant Conference. May this event be successful and bring us more knowledge and benefits in the future.

Wassalamualaikum Warahmatulla Hiwabarokatuh

Rector University of Muhammadiyah Gresik  
**Prof. Dr. Ir. Setyo Budi, M.S.**

## Acknowledgment

Assalamualaikum warahmatulla Hiwabarokatuh

My name is Andi Rahmad Rahim, chairman of the 2020 series 1th UMGESHIC committee. Thank you for the opportunity given. All praise is due to Allah, the Lord of the World, the Master and the Creator of everything in the Universe, the Destroyer of all oppressors and the Hope of the oppressed, for enabling us to meet together in this UMGESHIC (Universitas Muhammadiyah Gresik Engineering, Social Science and Health International Conference). Peace and salutation be upon the noble Prophet of Islam, Muhammad S.A.W. and his household, companions, and faithful followers until the end of time. The honorable, The Rector, and the entire academic community of the University of Muhammadiyah Gresik. The honorable, all first and second-day keynote speakers and plannery session. Those who are willing to share their knowledge at this international conference.

I want to say thank you very much to the entire committee of the international conference who had hard work to prepare this conference with good, and especially to all the Participants and Presenter of this International Conference. This international conference's theme is "Enhancing Human Resources Productivity through engineering, social science, and health during covid -19 Pandemic." This international conference talks about increasing human resources' productivity as an example of human performance to remain productive during the Covid-19 pandemic in engineering, social science, and health. At this conference, we will get much important information. Therefore, I, who represent all the committee, hope that this conference can be useful. That was the opening remarks on the second day.

Wassalamualaikum Warahmatulla Hiwabarokatuh

Chairman of the Confrence

**Dr. Andi Rahmad Rahim, S.Pi, M.Si.**

## **Committee**

**Conference Chair:**

Dr. Andi Rahmad Rahim, S.Pi, M.Si.

**Committees**

Dr. Nur Fauziah, S.Pd. M.Pd.  
Dr. Sukaris, S.E., M.S.M.  
Paulina, S.Pd. M.Pd.  
Elly Ismiyah, S.T., M.T.  
Indra Gita Anugrah, S.Kom. M.Kom.  
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Abdurrahman Faris Indriya Himawan, S.E., M.S.M., CPHRM.  
Riska Widiyanti Batubara, S.Hum. M.Pd.  
Dodi Jaya Wardana, S.H., M.H.  
M. Azmi Mubarak, S.E.  
Mohammad Ahyan Yusuf Sya'bani, S.Pd.I. M.Pd.I.  
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Dr. Eva Desembrianita, Dra. M.M.  
Dr. Asri Rejeki, M.M.Psi.  
Wenti Krisnawati, S.E., M.S.M.  
Hariyono Hanafi, S.Kom.  
Nurul Afriani, S.E.  
Melyna Septa Devina, S.Pd.  
Dita Rahmania, S.Pd.  
Trishna Nanda Barianty, S.Pd.  
Amirudin  
Alia Mulyatin  
Rusdiana

## **Reviewers**

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Dr. Andi Rahmad Rahim, S.Pi, M.Si.  
Dr. Sukaris, S.E., M.S.M.  
Paulina, S.Pd. M.Pd.

### **Keynote Speakers**

**Michael Lumintang Loe, dr, M.Si, M.Ked (Neusurg), Sp, BS, FINPS**

Email: [dr.michael.Lumintang@gmail.com](mailto:dr.michael.Lumintang@gmail.com)

#### **Educational Background**

- Post Graduate Doctoral Program, Medical Faculty, University.
  - Neurosurgery Residency, Universitas Sumatera Utara.
- Master Program, Medical Faculty, Universitas Sumatera Utara.
- Master Program, Medical Faculty, Airlangga University, Surabaya
- Medical Doctor, Medical Faculty, Brawijaya University, Malang

#### **Organization membership**

- American Association of Neurological Surgeons (AANS)
  - European Association of Neurosurgical Societies
    - Congress of Neurological Surgeons -US
      - PERSPEBSI
  - Fellow of Indonesian Neurosurgical Pain Society

#### **International medical training**

- 2019 - Neurosurgery Dept. Mayo Clinic Jacksonville, US
- 2017 - Fujita Health University, Nagoya, Aichi, Japan

### **Rusly Harsono**

Clinical Assistant Professor, Pediatrics - Critical Care

#### **CLINICAL FOCUS**

- Pediatric Critical Care Medicine

#### **ACADEMIC APPOINTMENTS**

- Clinical Assistant Professor, Pediatrics - Critical Care

#### **PROFESSIONAL EDUCATION**

- Board Certification: Pediatric Critical Care Medicine, American Board of Pediatrics (2008)
  - Fellowship: Women and Children's Hospital of Buffalo (2007) NY
  - Board Certification: Pediatrics, American Board of Pediatrics (2005)
- Residency: Brookdale University Hospital and Medical Center (2004) NY United States of America
  - Internship: North Shore University Hospital (2001) NY
- Medical Education: Fakultas Kedokteran, Universitas Sumatra Utara (1993) Indonesia

### **Pregiwati Pusporini, ST. MT. Ph.D.**

Department of Industrial Engineering University of Muhammadiyah Gresik

[pregiwati\\_pusporini@umg.ac.id](mailto:pregiwati_pusporini@umg.ac.id) A. Educational Background Bachelor Degree in Industrial Engineering, ITN Malang, 1993. Master Degree in Industrial Engineering, ITS Surabaya, 2002. Doctoral Degree, School of Engineering, University of South Australia, Australia, 2015

### **Dr. Hasimah Ja'afar**

English Language and Literature Department Faculty of Languages and Communication  
Universiti Pendidikan Sultan Idris 35900 Tanjung Malim Perak, Malaysia

EDd (Doctor in Education) Nova Southeastern University, USA MEd (TESL) Universiti Pendidikan Sultan Idris, Malaysia Bed (TESL Nottingham University, UK Teacher Training Certificate Kota Bharu Teacher Training College, Malaysia

**Sumar Hendayana, Ph.D.**

Lecturer at the Indonesian University of Education Jalan Setiabudhi No 229 Bandung 40154

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IKIP Bandung, Graduated in 1982

State University of New York, USA, Graduated in 1988

Clarkson University, New York, USA, Graduated in 1994. Job Experiences: Visiting Professor, Nagoya University, Japan (10th June - 13th July 2019), Head of Center for Innovation in Education, Institute of Research and Community Services, Indonesia University of Education (2010 - 2016), Visiting Research Scholar for CICE (Center for the study of International Cooperation in Education), Hiroshima University, Japan (December 2009 - March 2010, Dean of the Faculty of Mathematics and Science Education, Indonesia University of Education (2004 - 2008)

**Nariman Salih Ahmad, Ph.D**

Assistant Professor College of Agricultural Engineering Sciences University of Sulaimani

Nationality: Iraqi- Kurdish Date and place of birth: 15th April 1974, Sulaimani Contacts: Email:

[nariman.ahmad@univsul.edu.iq](mailto:nariman.ahmad@univsul.edu.iq) [nariman.sul@gmail.com](mailto:nariman.sul@gmail.com)

Education and Qualifications: March 2013 Ph. D. in Plant Biotechnology (Molecular Genetics and Breeding), School of Biosciences the University of Nottingham, UK Dissertation: Genetic analysis of plant morphology in Bambara groundnut (*Vigna subterranea* L. (Verdc.)) November 2003 M.Sc. in plant breeding University of Sulaimani, Iraq Thesis: Diallel crossing and genetic analysis of some tobacco varieties. July 1997 B. Sc. In Agronomy University of Sulaimani, Iraq Current Work: ▪ Academic staff (Assistant Professor) at the Department of Biotechnology and Crop Science, College of Agricultural Engineering Sciences, University of Sulaimani, Kurdistan-Iraq ▪ Project Manager at Kurdistan Botanical Foundation <http://kurdistanbotanical.org/>, Sulaimani- Iraq. ▪ Editorial Board of the Journal of Life and Bio-Sciences Research (JLBSR) with ISSN: 2708-1818, <https://jlbsr.org/index.php/jlbsr>. Employee History: ▪ Assistant professor at the University of Sulaimani, College of Agricultural Engineering Sciences from Dec. 2015 until now. ▪ Lecturer at the University of Sulaimani, University of Sulaimani, College of Agricultural Engineering Sciences, from June 2007 until Dec. 2015. ▪ Assistant lecturer at the University Of Sulaimani College Of Agricultural Engineering Sciences, from Jan 2004 until May 2007. ▪ M Sc. Student at the University of Sulaimani College of Agricultural Engineering Sciences, from October 2001 until Nov. 2003.

**Tito G. Vivas-Buitrago, M.D, PhD**

Dr. Vivas-Buitrago's project with the lab's basic neurosurgery research team focuses on neurogenesis in the subventricular zone and the role it plays in brain cancer throughout its development and progression. He also works on emerging technology translation to the surgical and academic fields.

As part of the clinical neurosurgery team, he is helping elucidate the behavior of remnant glioblastoma cells after surgical resection in the recurrence of brain lesions and has assisted in the development of the neurosurgical textbook "Video Atlas of Neurosurgery: Contemporary Tumor and Skull Base Surgery."

Dr. Vivas-Buitrago first joined Dr. Quinones-Hinojosa's team for six months in 2014 as a medical student finishing his last subinternship rotation. He did part of his subinternship at the Naval Force Hospital in Cartagena, Colombia, and the Comuneros Hospital in Bucaramanga, Columbia. He received his medical degree from the University of Santander in Bucaramanga in 2014. He is funded by the Universidad de Santander, Colombia, and the Neurotrauma Center I.P.S., Bucaramanga, Colombia.

## Conference Program

**UMGESHC 2020**  
**9 - 10 December 2020**

### Agenda Day 1, Wednesday, 9 December 2020

Time Schedule	Events	PIC
07.00 - 08.00	Registration	Committee
08.00 - 08.05	Opening and welcoming dance	MC
08.05 - 08.20	Singing Indonesian National Anthem	MC, Operator
	Indonesia Raya	
	Singing Mars Muhammadiyah	
	Sang Surya	
08.20 - 08.25	Welcoming Speech	MC, Rector
08.25 – 08.30	Speech: Vice Rector I	Vice Rector I
08.30 - 12.30	<b>Enhancing Human Resources Productivity on Engineering, Social, Science, and Health during Covid 19 Pandemic</b>	Keynote Speakers, Moderator
	Speakers:	
08.30 - 09.00	1. Rusly Harisono, MD., MBA., M.Sc., FAAP - Stanford University, California US	
09.00 - 09.30	2. Tito Vivas-Butrago, MD., Ph.D. - Mayo Clinic, Florida US.	
09.30 - 10.00	3. Nariman Salih Ahmad, Ph.D. - University of Sulaiman Iraq	
10.00 - 10.30	- <b>DISCUSSION</b> - <b>Certificate Awarding</b>	
10.30 - 11.00	4. Dr. Hasimah Ja'afar - University Pendidikan Sultan Idris Malaysia	
11.00 - 11.30	5. Pregiwati Pusporini, Ph.D- University of Muhammadiyah Gresik Indonesia	
11.30 - 12.00	- <b>DISCUSSION</b> - <b>Certificate Awarding</b>	
12.00 - 13.00	<b>BREAK</b>	
13.00 - 15.00	Parallel Session	Moderator

**Agenda Day 2, Thursday, 10 December 2020**

<b>Time Schedule</b>	<b>Events</b>	<b>PIC</b>
07.15 - 08.15	Registration	Committee
08.15 - 08.20	Opening	MC
08.20 - 08.30	Welcoming Speech	MC, Chairman of the Committee
08.30 - 12.30	<b>Enhancing Human Resources Productivity on Engineering, Social, Science, and Health during Covid 19 Pandemic</b>	Speakers, Moderator
	Speakers:	
08.30 - 09.00	1. Dr. Anidah Binti Robani - Universiti Teknikal Malaysia Melaka Malaysia	
09.00 - 09.30	2. Sumar Hendrayana, Ph.D. – Universitas Pendidikan Indonesia	
09.30 -10.00	3. dr. Michael Lumintang Loe, M.Si., M.Ked (Neusug), Sp. BS., FINPS – Post Graduate Doctoral Program, Universitas Airlangga / Siloam Hospital Palangka Raya	
10.00 -10.30	- <b>DISCUSSION</b> - <b>Certificate Awarding</b>	
10.30 -11.00	4. Siti Maesurri Patahudin, Ph.D. – University of Canberra Australia	
11.00 -11.30	5. Al-Ghaliya Humaid Khamis Al Mamari, Ph.D.-Sultanate of Oman.	
11.30 – 12.00	- <b>DISCUSSION</b> - <b>Certificate Awarding</b>	
12.00 - 13.00	<b>BREAK</b>	Committee
13.00 - 15.00	Parallel Session	Moderator Class
15.00 - 15.30	Closing Remark	MC, Rector

## Pararel Sessions 1

### Day 1 Wednesday, 9 December 2020

<b>Moderator (Economi)</b>	<b>Dr. Moh. Agung Surianto, S.E., M.S.M.</b>
<b>Bussienes Manajement</b>	
Anita Handayani, Dewi Ayu Gandini	Mediating Effects of Capital Structure in the Financial Performance Manufacturer Company in Indonesia
Fandi Prasetya	The response of Micro, Small and Medium Enterprises in the face of the Corona Virus Diseases (COVID-19) Pandemic situation
Fani Sarika, Suryani Murad	Retailer's Strategy in Reshaping Consumers' Satisfaction and Wellbeing during a Pandemic
<b>Accounting</b>	
Nyimas Wardatul Afiqoh	Good University Governanceto Improvestudent Service And Trust (Study At the University Of Muhammadiyah Gresik)
Sasya Sabrina, Chandra Wijaya, Edwin Hendra	The Effect of Book-Tax Conformity, Investment Opportunity Set, and Audit Quality on Earnings Response Coefficient
Armanto Witjaksono, Yudistira Yudatama	The Influence of Professional Skepticism, Independence, Competence, and Experience on Auditor's Ability to Detectfraud
<b>Entrepreneurship</b>	
Beni Dwi Komara, Laily, Heri Cahyo Bagus Setiawan, Aries Kurniawan	Illage Community Business in Maintaining Traditional Food "Opak Ladu" Based On Creative Economics
Vembri Aulia Rahmi, Nanang Bagus Setiawan, Hadi Ismanto	Business Sustainability of Village Product in Gresik, Indonesia
Heri Cahyo Bagus Setiawan, Aries Kurniawan, Beni Dwi Komara	Implementation of Theory Z William Ouchi in Pesantrenprenur: Study on Organizational Culture
<b>Moderator (Engineering)</b>	<b>Muhammad Zainuddin Fathoni, S.T., M.MT.</b>
<b>Engineering</b>	
Ade Ariesmayana, Ismiyati, M. Kosasih	the influence of coagulant al <sub>2</sub> so <sub>4</sub> and pac (poly alumunium chloride) toward leachate water quality tpa cilowong based enviromental standard
Choirul Anam, Benny Arif Pambudiarto, Zainal Mustakim, Fiska Yohana Purwaningtyas	Deproteination process on the chitin isolation from placuna placenta shells
Herry Purnama, Nurhadyati	Utilization Of Red Dragon Fruit Extract On

	The Dye Sensitized Solar Cell (Dsse) Application With The Touchscreen Capacitive Layer
<b>Industrial</b>	
Efta Dhartikasari Priyana, Pressa Perdana Surya Saputra.	Alternative Selection of Study Programs In Faculty of Engineering Based On 4 Criteria With Statistical Approach And Technique For Order Performance By Similary To Ideal Solution
Dzakiyah Widyaningrum	Performance Measurement Framework for Aquaculture Supply Chain Performance: Weighting Criteria by Unity
Moh. Dian Kurniawan, Iksan	Recommending Supply Chain Management Performance Improvement Using The Scor (Supply Chain Operations Reference) Methodat Pt Polowijo Gosari Gresik
<b>Moderator (Law)</b>	<b>Dr. Nirwanto Ma'ruf, SS., M.Hum.</b>
Dodi Jaya Wardana, Sukardi, Radian Salman	Instruments Of Democracy In Law-Making In Indonesia
Erna Ratnaningsih, Siti Yuniarti	The Limitation of the Right to Assembly and the Right to Movement in Order to Fulfil the Rights to Health of Society in the Covid-19 Pandemic in Indonesia
Nirmala Many, Muhammad Reza Syariffudin Zaki and Cecilia Elisabeth Agatha	Marine Casualty Caused By Ever Judger In Balikpapan Bay, Human Error Or Technical Factors
Austin Al Hariz, Nashriana, Vera Novianti	Legal Protection for Child Victims of Violence in Primary School
Iron Sarira	Justice as the Aim of/for Formation of Labor Law in Indonesia (A Review of Philosophy of Law)
<b>Moderator (Health)</b>	<b>Noviatul Rochmah, S.Pd., M.Pd.</b>
Diyan Indriyani, Asmuji, Triawan Adi Cahyanto, Astrid Maharani, Sri Wahyuni.	Community empowerment through independent family health evaluation (IFHE)-based healthy villages
Wahyu Dewi Sulistyarini, Siti Mukharomah	Psychometric Testing and Cross-Cultural Adaptation of the Indonesian version of The Short Form Survivor Unmet Needs Survey (SF-SUNS)
Siti Sopiaturun, Sri maryati	The Influence Of Posyandu Cadre Training On Knowledge And Attitudes In Efforts To Prevent Stunting In Karawang

## Pararel Sessions 2

**Day 2 Thursday, 10 December 2020**

<b>Moderator (Islamic Study)</b>	<b>Ribeh Najib Muhammad, S.Pd., M.Pd.</b>
Mohammad Ahyan Yusuf Sya'bani	Culture Of Religious Moderation Through The Actualization Of Islamic Education Wasatiyyah To Improve Religious Reconnection And Tolerance In Indonesia
Tika Widiastuti, Muryani, Puji Sucia Sukmaningrum,	Critical Review of Social Safety Net in COVID Era Based On Maqashid Sharia Framework: Indonesia Case
Sukron Ma'mun, Ramot Peter, Catarina Manurung.	The Improvement of Understanding and Tolerance Attitude of Binus Students through Character Education
Taqiyah Dinda Insani, Tika Widiastuti, Anidah Robani, Rahmat Yuliawan	E-Reporting of Islamic Bank in Indonesia: Enhancing Productivity in Pandemic Covid-19
Imron Mawardi, Sri Ningsih, Wisudanto, Tika Widiastuti <sup>4</sup> , Muhammad Ubaidillah Al Mustofa, Anidah Robani.	Efficiency Analysis of Indonesian Islamic Microfinance Institution: Case of East Java
<b>Moderator (Education)</b>	<b>Riska Widyanti Batubara, S.Hum., M.Pd.</b>
Nuansa Bayu Segara, Agus Suprijono, Katon Galih Setyawan	Designing Measurement Model Of Self Determined Learning During The Covid-19 Pandemic
T Y Ardiyansah, R W Batubara' P K Auliya	Pre-Service Teachers' Satisfaction Towards Online Learning Process In International Internship Program In Thailand
Ribeh Najib Muhammad, Paulina	Lecturers' Resistance To Implementing Distance Learning
Yuventia Prisca Diyanti Todalani Kalumbang, Miftahul Hamim, Yoseph Benny	The Material Development In Teaching English Savvy On Department Of Business Creation At Bina Nusantara Malang Campus
Paulina, Muhammad Zainuddin Fathoni, Farah Natchiar Mohd	English Proficiency Test: Investigating Its Mismatch With Students' Needs On Industrial Engineering Department
Nur Fauziyah	Understanding Profiles Of Students With Autism Spectrum Disorder (Asd) In Visualizing Geometric Objects Based On Different Levels Of Intelligence
<b>Moderator (Agriculture)</b>	<b>Dr. Farikhah, S.Pi., M.Psi.</b>
<b>Agriculture</b>	
Munti'ah Mawardhani, Puji Harsono, DN Septiriani, Supriyadi, Hadiwiyono.	Field Application Of Lemongrass Oil To Control Aphis Gossypii And Virus Symptom On Chili
Rahmad Jumadi, Suhaili, Wiharyanti Nur Lailiyah.	Growth and yield of several sorghum (sorghum bicolor (L.) Moench) Varieties Using Seed Biomatrixconditioning Treatment
S. Budi	Study of Several Superior Sugarcane Clones

	(Saccharum Spp.) Growth in Various Salt Stress Level
U Firmani, R Nurdiani, A W Ekawati and H Nursyam.	Gut bacteria community of the milkfish ( <i>Chanos chanos</i> Forskal.) in Gresik, East Java Province
Sri Wiyatiningsih, Wiwik Sri Harijani, Wahyu Santoso, Riko Setya Wijaya, and Khoirur Rojikin.	Biopesticide Applications To Improve The Resistance Of Pummelo Orange Plant ( <i>Citrus Maxima</i> ) Against Diplodia Disease ( <i>Botryodiplodia Theobromae</i> Path.)
<b>Fishery</b>	
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Yoseph Benny Kusuma, Miftahul Hamim, Yuli Rahmawati	Internet Self-Efficacy And Academic Procrastination In Students Who Following Online Learning During The Covid-19 Pandemic

## LAW

### INSTRUMENTS OF DEMOCRACY IN LAW-MAKING IN INDONESIA

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#### ABSTRACT

Law is basis for the implementation of all policies made by the government. The legal policy as outlined in the law, becomes a means of social change, which contains policies to be achieved by the government, to direct people to accept the new values. The purpose of writing this paper is to examine the instruments of democracy in law-making, especially Indonesian law. This research uses statute and conceptual approach to study and analyze the conceptual framework that is suitable with this research, namely the instrument of democracy in law-making. Finding of the research is principle of democracy in law-making in Indonesia can be identified into three fundamental aspect: guarantee of information disclosure, public participation and public-rights mechanisms. Information Disclosure can be in the form of: (a) Guaranteed information disclosure, (b) Accountability, and (c) Consensus. Community participation is carried out through: (a) Public hearing, (b) Work visit, (c) Socialization, and (d) Seminars, workshops and discussions. Public-right mechanism can be: (a) judicial enforcement in the form of judicial review and democratic-mechanism in the form of demonstration. Most of the instruments of democracy in law-making in Indonesia is community-participation based.

**Keywords: Law; Democracy; Instrument.**

## **CRIMINAL SUPERVISION OF CHILDREN CONCERNING THE LAW IN THE INDONESIAN CRIMINAL SYSTEM**

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### **ABSTRACT**

Increased delinquency of children that leads to criminal acts encourages paying more attention to the prevention and handling. Children who commit crimes so that they face the law should be protected and nurtured. In dealing with the problem of children in conflict with the law, starting from coaching, education, and developing children's behavior is not only the responsibility of parents but also the surrounding community. If children's delinquency is not taken seriously, this will mean that it will destroy the younger generation who will continue the ideals of the nation. The purpose of writing this paper is to examine criminal supervision against children who are faced with the law in the Indonesian criminal system. The research method used is to study and analyze the conceptual framework in accordance with this research. The results of research on legal issues that are studied and analyzed are the Supervision Crime is an alternative to the conditional deprivation of liberty, namely the provision not to carry out the sentence that has been imposed (relating to imprisonment) with the holding of certain conditions and a maximum probation period of 3 three years. Children who are sentenced to supervision are generally outside the Penitentiary so that they seem free from punishment because the child is in their family environment and can still carry out their daily activities.

**Keywords: Criminal; Supervision; Child.**

# **THE LIMITATION OF THE RIGHT TO ASSEMBLY AND THE RIGHT TO MOVEMENT IN ORDER TO FULFIL THE RIGHTS TO HEALTH OF SOCIETY IN THE COVID-19 PANDEMIC IN INDONESIA**

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## **ABSTRACT**

Abstract. The Corona Covid-19 virus has officially known as a global pandemic by World Health Organization (WHO). Many countries have different ways to avoid the spread of Covid-19 such as the prohibition of people to assemble, limitation of activities in public places/facilities, social distancing and lock down. These state policies have implications for restrictions on human rights including the right to assemble and the right to movement in order to accomplish public health right. The aim of this research is to examine whether the restriction of certain rights in the fulfillment of the people's health rights is justified in the Constitution and legislation in Indonesia and also based on the principles of international law. The research is normative and using secondary data. The paper explains the right of assembly, the right of movement, the right of health are guaranteed as derogable rights in Indonesia Constitution. It obtains restrictions on the right to assemble and the right to movement in the context of tackling the global academic Covid-19 can be justified in the Indonesian constitution. In principle, the restrictions imposed by the state cannot be for non-derogable rights and should not be discriminated on vulnerable people. Indonesia has issued numerous policies in handling Covid-19, but the laws and regulations made do not refer to Article 12 of the 1945 Constitution that regulates state emergency. So, in the future, the state should make law reform on Law No. 23 of 1959 concerning the state of emergency that does not in accordance with the current situation. The government should make regulations to protect the health of society, to restrict further human rights without discrimination and to afford the basic need for society as the implication of the limitation of human rights.

**Keywords: The Limitation of the Rights to Assembly/Movement, The fulfilment of the Rights to Health, Covid-19 Pandemic.**

# CHILDREN'S PRIVACY AND DATA PROTECTION IN JUDICIAL DECISIONS

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## ABSTRACT

Children's privacy and data protection is essential in maintaining and fulfilling legal obligations in protecting children's privacy. The child is appointed as a defendant, witness or victim and legally the trial is declared closed to the public in order to protect the child's privacy. Since the trial is declared closed to the public, the identity of the child cannot be published, including when the verdict is declared. Problems arise when an excerpt of a verdict from a case related to children is published and displayed on the Supreme Court website demonstrating inconsistencies in protecting the child's privacy in the legal process. In some cases, it has been found that the court verdict displays the child's identity completely or partially. Even where there are verdicts that do not display the child's identity, information regarding the criminal cases may be clearly exposed in the verdict making it possible to find out personal information about the children as well. As such, through an analysis of secondary data and a review of the legal framework, this paper presents the protection of children's privacy data in judicial decisions as currently found in Indonesia, and its implications for children. It concludes by identifying how legal norms should rule the protection of children's privacy data in judicial decisions.

**Keywords: personal data of children, judicial decisions, protection**

# **LEGAL PROTECTION FOR CHILD VICTIMS OF VIOLENCE IN PRIMARY SCHOOL**

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## **ABSTRACT**

Violence to children can occur anywhere, including in the world of education. This research is the form of legal protection for child victims of violence in elementary schools and how to prevent legal protection against child victims of violence in primary schools. This research aims to know and explain the form of legal protection for victims of violence against children in schools. It is also to understand and explain lawful prevention in carrying out legal guardians for children's violence victims in schools. The research method in this research is descriptive analysis. The types of data in this study are primary and secondary data. Methods of data collection using field studies, literature studies, and documentation studies. Research locations are in several elementary schools in the city of Palembang. Forms of protection for child victims of violence in primary schools include rehabilitation efforts in an institution or outside the institution. These strategies are useful for restoring mental, physical, especially after experiencing intense trauma due to a criminal incident. Efforts to prevent child victims of violence in elementary schools, namely the school collaborating with parents in supervising students and children so that acts of violence committed by children in elementary schools do not happen again. Conclusion is Forms of protection for children who are victims of bullying: Rehabilitation efforts that are carried out within an institution or outside of an institution, these efforts are made to restore mental, physical, and other conditions after experiencing very deep trauma as a result of a criminal event he has experienced. Efforts to protect the victim's identity from the public, these efforts are made to ensure that the identity of the child who is the victim or the victim's family is not known by others, with the aim that the good name of the victim and the victim's family is not tainted. Efforts to provide safety guarantees for victim witnesses, namely children and expert witnesses, both physically, mentally and socially from threats from certain parties, are made to ensure that the case process runs efficiently.

**Keywords: legal protection, violence, elementary school, children, victims**

**JUSTICE AS THE AIM OF/FOR FORMATION OF LABOR LAW IN INDONESIA  
(A REVIEW OF PHILOSOPHY OF LAW)**

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**ABSTRACT**

It is necessary to not only study the phenomenon of manpower in Indonesia from the normative perspective of law, but it is also necessary to expand to labor law in philosophical order which should be able to make the practitioners and involved parties understand the essence, implementation and the meaning of labor law, it means the law in the philosophical order, in the aspect of manpower is to create harmonious dynamic and equitable industrial relationships. The understanding of labor law as a goal is still not given enough attention and/or still underdeveloped, so that often there are positive law (what is written or as it is) nuances in the application of labor law from the making, approval and implementation, until decision at court level. It is expected that the use of philosophical juridical aspects in the implementation of labor laws regarding the praxis basis will make the implementation of labor laws to be fairer to the parties involved, by introducing good values from the normative, the sociological (experience), and the philosophical order. Philosophy is used as the balance for law enforcement dimension, which is conditioned as a reflection of justice as a moral will, so that positive law can realize certainty (*juristische geltung*) and usefulness (*soziologische geltung*). So, the philosophy of law essentially wants to explore the essence of the law. It wants to understand law as an appearance or manifestation of a principle that supports it as an embodiment of the ideals of law which in a legal sense is formed in accordance with the principle of justice which is desired in the implementation of aspects of industrial relations.

**Keywords: Manpower, Philosophy, Justice**

## **THE FORCE MAJEURE CLAUSE AMID NEW NORMAL COVID 19**

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### **ABSTRACT**

A force majeure clause is a contractual provision that frees a party to perform a contract due to circumstances that make it impossible to perform the contract. A contract is an agreement made by one or more people. Contracts are often made in a written form which contains provisions concerning force majeure. The existence of this clause aims to protect the parties who make the contract from the consequences of a situation where the party cannot perform the contents of the contract. In the new normal era after the COVID-19 pandemic that is currently hitting the impact on the application of contract terms. This study describes the force majeure clause and the considerations when making a new contract in terms of contract law.

**Keywords: Force Majeure, Contract Law, New Normal, COVID-19.**

# **MARINE CASUALTY CAUSED BY EVER JUDGER IN BALIKPAPAN BAY, HUMAN ERROR OR TECHNICAL FACTORS**

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## **ABSTRACT**

A marine casualty involved MV Ever Judger has occurred on 30 March 2018 in Balikpapan Bay. The vessel was about to leave the terminal and headed to Malaysia. Unfortunately, the ship underwent problem on main engine and the departure was delayed. Later in the evening, the crews resolved the issue and planned to drop the anchor in Balikpapan Bay. The anchor hit and dragged the submerged crude oil pipeline of PERTAMINA which caused pipeline damage and crude oil pollution. There were three ships impacted by the fire blast, the vessel itself and two other wooden vessels. One of the vessel's crew was badly injured, and five people died at the scene. The report says that crude oil spread onto the bay and damaged marine life and mangrove forest. The accident has caused one of the five pipes broken into V-shape. PERTAMINA underwater survey reported there was an anchor scar, assumingly the vessel's anchor. Balikpapan District Court passed a judgment that the Master found guilty of breaching Article 98 (3) of Law Number 32/2009 on Protection and Management of Environment. The study aims to discuss the liabilities of parties in this casualty. This research uses normative juridical approach, namely analyzing document study and literatures using secondary data, consist of primary, secondary and tertiary legal resources, such as relevant statutory regulations, international conventions, court's hearings and judgments, books and journals combined with interview with relevant parties. The study is explanatory in nature by studying the case through information, statements and other sources.

**Keywords: marine casualty, liability, Balikpapan Bay, PERTAMINA**

# **REGULATION OF PRIVATE LAND BANKING DURING THE AGRARIAN REFORM IN INDONESIA**

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## **ABSTRACT**

The land banking institution is one of the provisions stipulated in the Job Creation Law that must be implemented by the government. Meanwhile, it is known that land banking is one of the business strategies by the private sector. On the other hand, there is no provision for the maximum amount of land tenure by individuals or legal entities, which is why the private sector can control a large amount of land. The problem in this research is whether the agrarian reform program has regulated the maximum acquisition of land tenure by the private sector and also whether it is in line with the concept of sustainable development. The results showed that land banking activities by the private sector continued to show an increase even during the Covid-19 Pandemic outbreak. Meanwhile, the process of location permits for land use for investment purposes has been made easier, and it is stated clearly in the Job Creation Law.

**Keywords: Regulation, Private, Land Banking**

## **THE INDEPENDENCE OF THE TRUSTEE AS AN ORGAN FORMED BY THE PUBLIC COMPANY**

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### **ABSTRACT**

Research on the independence of the trustee as an organ formed by the public company aims to find out about (1) how the independence of the trustee appointed by the public company; and (2) who should appoint a trustee in the framework of independency of the trustee. This study uses a normative legal research method that functions to provide juridical argumentation when there is emptiness, obscurity, and conflict in legal norms. The data in research obtained through library research and explanatory analysis. From the research results, it is known that (1) the trustee appointed by the public company is not independent; and (2) the party that should name a trustee in the framework of independency of the trustee is the bondholder whose interests are represented by the trustee.

**Keywords: The Independence; Trustee; Company**

## **LEGAL PROBLEMS IN THE JOB CREATION ACT IN THE ENVIRONMENTAL SECTOR**

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### **ABSTRACT**

The government revokes the environmental permit as a condition for obtaining a business license in the Job Creation Law. Environmental permits are integrated into business licenses which simplify the process of business licensing when in fact the future of the environment is threatened. This is because the role of the community in protecting the environmental impacts arising from development has been eliminated and the correction mechanism for companies and license issuers has also been removed. In the Job Creation Law, it is seen that environmental permits become Environmental Approval, namely a decision on environmental feasibility or a statement of environmental management capability that has received approval from the central government, whose scope of business license includes AMDAL and UKL-UPL efforts. The problem is how is the enforcement of criminal law in the Job Creation Law related to environmental problems? The method in this research is juridical normative with analytical descriptive specifications which conclude that in the Cipta Karya Law there is no longer a strict criminal sanction, but administrative sanctions are emphasized so that many business actors can repeatedly make environmental crime violations. This is reinforced by the amendment and elimination of articles in the UUPPLH so that space for people affected by industry is considered a form of deprivation of community rights and environmental permits issued by small to large industries cannot be contested. Even though the environmental permit requirements must have an Amdal. And Amdal is now in the hands of the central government.

**Keywords: Job Creation Act, Environmental Sector, Legal Problems**

# **DEVELOPMENT OF LEGAL PROTECTION PROTOCOLS FOR VICTIMS OF DOMESTIC VIOLENCE TO IMPROVE THE QUALITY OF LIFE AND REPRODUCTIVE HEALTH OF WOMEN DURING THE COVID-19 PANDEMIC IN MEDAN**

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## **ABSTRACT**

Domestic violence (KDRT) is usually a female victim or wife whose effects include physical pain, mental stress, decreased self-confidence and self-esteem, experiencing feelings of helplessness, post-traumatic stress, depression, and even the desire to commit suicide. Especially during the Covid-19 pandemic this time, there was a lot of domestic violence in Medan. Domestic violence that results in reproductive health problems and ultimately results in sociological disorders. The problem is what is the statutory protocol in implementing legal protection for victims of domestic violence and what is the impact of domestic violence on the reproductive health of victims of domestic violence. Indonesia has a traditional instrument in the form of Law Number 23 of 2004 concerning the Elimination of Domestic Violence (UUPKDRT). Based on Article 4 of UUPKDRT, all forms of domestic violence need to be prevented by punishing the perpetrators with imprisonment and fines. Settlement of domestic violence cases to realize women's rights to obtain healthy reproductive health so as not to experience menstrual disorders, experience premature menopause, experience decreased libido, inability to orgasm or other things that affect the health of thereproductive organs. Domestic violence, which started as a privacy issue, then became a public issue. For this reason, the role of law enforcement officials and their supporting institutions needs to develop a legal protection protocol for victims of domestic violence to improve the quality of life of women, especially in the Medan area.

**Keywords: COVID-19; Pandemic; Mental Health; PKDRT Law Protocol; Legal Protection; Reproductive Health; Domestic Violence.**

**THE FUNCTIONALIZATION OF THE ULTIMUM REMEDIUM PRINCIPLE  
TOWARDS THE IMPLEMENTATION OF CRIMINAL ACTIONS ENVIRONMENTAL  
LICENSE IN THE PERSPECTIVE OF ENVIRONMENTAL CRIMINAL LAW IN  
INDONESIA**

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**ABSTRACT**

Environmental law is a juridical instrument for environmental management which basically includes structuring and enforcement consisting of administrative law, civil law and criminal law. Environmental law enforcement is considered a tool (an end) which functions as a statutory regulation regulating waste quality standards. In Law Number 23 of 1997 concerning Environmental Management, there are several differences with the UUPPLH Number 32 of 2009, which is the application of the subsidiarity principle of criminal law in Environmental Law Enforcement. The application of the subsidiarity principle in environmental law enforcement according to this study is not measurable, subjective and has no legal certainty. There is a debate in the settlement of environmental disputes that must be analyzed, namely whether the application of criminal law is an ultimum remidium (last resort) or a premium remidium (the main effort). The type of research is normative legal research that uses qualitative juridical analysis techniques with literature study and document observation. So the results of the research conclude that the violation of formal offenses, the role of administrative law must be prioritized in solving environmental problems, after these efforts are ineffective, then criminal law is optimized as a last resort. This is clarified in UUPPLH in point 6, which states that the function of criminal law against formal environmental law offenses is ultimum remedium because criminal law is a complement to administrative law and civil law. However, for serious crimes and causing public unrest, environmental criminal law is not an ultimum remedium but a premium remedium.

**Keywords: Ultimum Remedium; Environmental License; Environmental Criminal Law**

# **LEGAL SUBJECT INTERPRETATION OF LAW NUMBER 18 OF 2013 CONCERNING THE PREVENTION AND ERADICATION OF FOREST DESTRUCTION**

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## **ABSTRACT**

Law number 18 year 2013 concerning the Prevention and Eradication of Forest Destruction (Law 18/2013) specifically regulates crimes committed by organized individuals and corporations. The definition of being organized is clearly regulated in Law 18/2013. However, it is still inaccurate. Thus, this research analyzes the interpretation of criminal legal subjects regulated in the criminal provisions of Law 18/2013 and in Court Decision Number 11/Pid.Sus/2018/PN Wns. By using the normative legal research method, with legislation and case approach, it can be concluded that the legal subject intended by Law 18/2013 is an organized individual and corporation.

**Keywords: criminal liability, criminal legal subject**

# **DEVELOPMENT OF LEGAL PROTECTION PROTOCOLS FOR VICTIMS OF DOMESTIC VIOLENCE TO IMPROVE THE QUALITY OF LIFE AND REPRODUCTIVE HEALTH OF WOMEN DURING THE COVID-19 PANDEMIC IN MEDAN**

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## **ABSTRACT**

Domestic violence (KDRT) is usually a female victim or wife whose effects include physical pain, mental stress, decreased self-confidence and self-esteem, experiencing feelings of helplessness, post-traumatic stress, depression, and even the desire to commit suicide. Especially during the Covid-19 pandemic this time, there was a lot of domestic violence in Medan. Domestic violence that results in reproductive health problems and ultimately results in sociological disorders. The problem is what is the statutory protocol in implementing legal protection for victims of domestic violence and what is the impact of domestic violence on the reproductive health of victims of domestic violence. Indonesia has a traditional instrument in the form of Law Number 23 of 2004 concerning the Elimination of Domestic Violence (UUPKDRT). Based on Article 4 of UUPKDRT, all forms of domestic violence need to be prevented by punishing the perpetrators with imprisonment and fines. Settlement of domestic violence cases to realize women's rights to obtain healthy reproductive health so as not to experience menstrual disorders, experience premature menopause, experience decreased libido, inability to orgasm or other things that affect the health of the reproductive organs. Domestic violence, which started as a privacy issue, then became a public issue. For this reason, the role of law enforcement officials and their supporting institutions needs to develop a legal protection protocol for victims of domestic violence to improve the quality of life of women, especially in the Medan area.

**Keywords:Development, Violence, Quality, Reproductive Health**

## **ISLAMIC STUDY**

### **CULTURE OF RELIGIOUS MODERATION THROUGH THE ACTUALIZATION OF ISLAMIC EDUCATION WASATIYYAH TO IMPROVE RELIGIOUS RECONNECTION AND TOLERANCE IN INDONESIA**

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#### **ABSTRACT**

Many issues and actions reflect the behavior of terrorism, extremism, radicalism, intolerance, understanding takfiri (happy to worry), and unilateral truth claims, and so on. This makes the nation-state necessary to seek solutions and prevention (preventive/anticipatory) one of which is to inaugurate the religious behavior that is tolerant, inclusive, and moderate. It can be seen from the viewpoint of religion, especially Islam to give the concept of Islamic Wasatiyyah through good and faithful religious moderation behavior. Therefore, it is crucial to research the actualization of Wasatiyyah Islamic values through religious moderation to improve the harmony and tolerance of religious people in Indonesia. The purpose of this research is to know the meaning and concept of Islamic Wasatiyyah (religious moderation) in the form of value and know the strategy and method of actualization of Islamic Education values Wasatiyyah (religious moderation) in increasing the harmony and tolerance of religious people in Indonesia. This research uses qualitative methods that belong to literature research. The data collection uses techniques with literature and the documentation analyzed by heuristic analysis methods, verification, interpretation, and synthesis. The results of the study showed that the culture of religious moderation possible to create by Islamic education Wasatiyyah. It constructed of tolerance, moderate, inclusive, anti-violence, justice, mutual assistance, harmony, and equal in the way of an accommodating education system to increase the unity among religious people in Indonesia.

**Keywords: Islam; Wasatiyyah; Tolerance.**

## **CRITICAL REVIEW OF SOCIAL SAFETY NET IN COVID ERA BASED ON MAQASHID SHARIA FRAMEWORK: INDONESIA CASE**

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### **ABSTRACT**

The high number of layoffs, bankruptcy, and increased poverty has forced the government to provide Social Safety Nets (SSN) programs to the public suffered from the COVID-19 pandemic. Problems arise when SSN programs failed to reach the basic needs of society. This paper aims to provide a Critical Review Analysis of the SSN program, especially in the COVID-19 pandemic, based on the Maqashid Sharia framework. This study used a qualitative approach with a case study analysis to provide a critical review of government policies in managing the COVID 19 pandemic. The data obtained from government policy literature such as Indonesia Laws from March-July 2020. The finding shows that from five aspects of Maqashid Sharia (Protecting Religion, Soul, Intellect/Mind, Heredity and Wealth), the Indonesia Government focuses on protecting the soul and wealth. This problem causes the non-optimal performance of the government when handling COVID 19 pandemics. The paper contributes to the government decision making for the SSN Program based on the the Maqashid Sharia.

**Keyword: COVID-19, Maqashid Sharia, Social Safety Net**

## **ASIAN ZAKAT MANAGEMENT ORGANIZATION (ZMO) PRODUCTIVITY ANALYSIS: EVIDENCE IN INDONESIA**

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### **ABSTRACT**

The Covid-19 pandemic made several countries in the Asian world especially Indonesia is a decline in various aspects, especially the economic aspect, namely poverty. Whereas in economic instruments there is a solution to overcome it, namely by means of zakat. But unfortunately zakat management in Indonesia has not been maximally productive. In fact, if zakat institutions implement productivity optimally, it will be able to increase community empowerment and maintain the country's economy. Therefore, this research was conducted to analyses productivity level of Zakat Management Organization (ZMO) in Indonesia based on its organization types, namely government, civil social organizations, and corporations. The level of productivity is measured based on the method of Malmquist Productivity Index (MPI) on 14 ZMO in Indonesia. This study reveals that ZMO managed the order of productivity by government, civil social organization, and corporation. The theory of specific productivity for developing ZMO performance, and provides the information of productivity level of ZMO and the information of the collected zakat funds and their distributions. The limitation of this study is the analysis period of productivity level and the range of zakat institutions as the object of the study.

**Keywords: Asian, Indonesia, Productivity, ZMO**

**EFFICIENCY ANALYSIS OF INDONESIAN ISLAMIC MICROFINANCE  
INSTITUTION: CASE OF EAST JAVA**

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**ABSTRACT**

This study examines the efficiency of Islamic Micro Finance Institutions (IMFIs) in East Java using a two-stage study. The first stage is to test the efficiency of the IMFIs using the Data Envelopment Analysis (DEA) approach and the second stage is to look for factors that affect efficiency using the panel regression. The DEA is employed for 19 IMFIs with three years of financial observance. The study further tests the impact of some macroeconomic and internal factors on the efficiency of IFMIs. Findings show that KSPPS Sri Sejahtera succeeded to maintain the level of efficiency for three executive years. Besides, macroeconomic factors play no contribution in effecting the efficiency of IMFIs while some internal factors such as the size of IMFIs, Labor Cost and Financing to Deposit Ratio affect the efficiency significantly with different degrees of exposure.

**Keywords: Efficiency, DEA, Panel Regression, Islamic Micro Finance Intuitions**

## **E-REPORTING OF ISLAMIC BANK IN INDONESIA: ENHANCING PRODUCTIVITY IN PANDEMIC COVID-19**

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### **ABSTRACT**

Islamic Bank has a challenge during the co-19 pandemic to maintain its existence, which has role in the productivity of real sector. It's role reflected by the funds and the amount of third parties who entrust their funds to Islamic banks. The use of technology, especially in corporate reporting, is one of the opportunities of the Islamic Bank. Furthermore, good communication must also be supported by good management performance. E-Reporting, Performance and Trust has the same determinant, which is Size of the bank. This study aims to analyze the relationship between Size, E-Reporting, and Performance to Trust of Islamic Bank in Indonesia. With a quantitative approach and Partial Least Square (PLS) based Structural Equation Model (SEM) analysis techniques, this study found that those three factors have effect on the Trust of Islamic Banks in Indonesia.

**Keywords: E-Reporting, Islamic Bank, Partial Least Square, Performance, Productivity, Size**

## **THE IMPROVEMENT OF UNDERSTANDING AND TOLERANCE ATTITUDE OF BINUS STUDENTS THROUGH CHARACTER EDUCATION**

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### **ABSTRACT**

This study aims to determine whether character education can improve the understanding and tolerant attitude of Binus University students and how the Binus University students implement the tolerant values in daily life. The methods used in this research are quantitative research methods with a type of correlational descriptive study. Primary data were collected through questionnaires and interviews with students who attended the Character Building Religion education. Secondary data was obtained from books, journals, magazines, newspapers, and others relevant to the research problem. Data analysis was conducted using content analysis, which explores the content or meaning of a book's symbolic message or other papers. The results showed the improvement of understanding and tolerant attitude of Binus University students after participating in the learning of religion character education. Similarly, the results also presented inter-religious relations in daily communication between the student and the better harmoniously intertwined.

**Keywords: Improvement; Understanding; Through Character**

# **CURATIVE DA'WAH AND THE IMPLICATION TOWARD THE CHANGES OF CONVICT RELIGIOUS CONDUCT IN PENITENTIARY CLASS I BANDAR LAMPUNG**

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## **ABSTRACT**

This research is aimed to see how significant the effect of Curative in the permanent changing of convicts' religious conducts. The focus of the problem in this study is to analyse how prison role in implementing the curative da'wah model and its implications for behaviours change in Penitentiary Class I Bandar Lampung. This is a qualitative descriptive research conducted toward 1.179 convicts. The results showed that there was a big religious behaviour changed among the convicts on their religious conducts and personality. The conclusion; Penitentiary Class I Bandar Lampung performed curative da'wah model. Curative model is "healing da'wah" which applied a series of da'wah process aimed to disenchant, to direct, to heal and to give convicts hope who have been descended in criminal behaviours to rise from the abyss of the offence and to a better state. The implications of the model application was the occurrence of a change religious behaviours in the forms of behaviours dimension belief; ideologies involvement, ritualistic involvement, experiential involvement, consequential involvement and intellectual involvement.

**Keywords: Curative Da'wah, Implication; Religious Conduct**

# **THE ROLE OF ROUDLOTUR RIDWAN ISLAMIC BOARDING SCHOOL IN EMPOWERMENT OF ISLAMIC COMMUNITIES THROUGH LIFE SKILLS IN THE CHILD SOCIAL WELFARE INSTITUTION (CSWI) PROGRAM IN EAST LAMPUNG DISTRICT**

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## **ABSTRACT**

This research focuses on the role of the Roudhotur Ridwan Islamic boarding school in empowering the Islamic community through life skills at the Child Social Welfare Institution (CSWI) in East Lampung Regency. This research is qualitative research; qualitative research is a research procedure with the results of descriptive data in the form of written words, spoken words, or observable human behavior. Data collection is got by interview, documentation, observation. The informants or resource persons are which consist of caregivers, instructors, village chiefs of Islamic boarding school, students, parents of students and CSWI administrators and existing stakeholders. The results showed the implementation of the community empowerment model, namely: First: The process of empowerment through life skills in the Islamic boarding school Roudlotur Ridwan in the CSWI program there are three processes: 1. Awareness stage: a. Building Mental Spirituality through Ruhul Jihad b. Leadership and Entrepreneurship 2. Capacity Building: Training through Life Skills 3. Powering. Second: Results of the Empowerment Process through Life Skills at the Roudlotur Ridwan Islamic Boarding School in the CSWI Program a. Output Empowerment: Character Strengthening, Economic Strengthening , Strengthening Emotional Ties, Strengthening institutions b. Outcome Empowerment; The economic empowerment of CSWI children is shown by the formation of skilled human resources with good character and honest and trustworthy entrepreneurs who are based on strong religious practice, as well as the realization of children's independence and welfare which is marked by economic strengthening.

**Keywords: Role Of Roudlotur, Boarding School; Islamic Communities**

## **THE UTILIZATION OF VILLAGE-BASED PARTICIPATION IN COMMUNITY EMPOWERMENT IN EAST LAMPUNG DISTRICT**

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### **ABSTRACT**

This research departs from the many problems faced by village governments in their readiness to carry out development through the use of village funds, which is a government program in implementing development on a national scale. Village funds should be a driving force for the welfare of the community as a whole and not just for a few people. Community empowerment is a village government program in community development activities through village funds. Researchers use qualitative descriptive analysis methods in research. The data sources of this research are the Regional Community Empowerment Service of East Lampung Regency, the village government, and the community. Methods of data collection using interviews and documentation. The data analysis process of this research was used Miles and Huberman Approach Model that covers some steps; data reductions, data display, and analysis. The results showed that the utilization of village funds carried out in East Lampung Regency was carried out in several stages, namely, 1) planning, 2) implementation and 3) evaluation of activities. Meanwhile, the community empowerment program is carried out in several aspects such as community empowerment in strengthening village government institutions, community empowerment in the economic, social, education, health, and renewal technology fields. Public awareness through development participation is the main capital for the success of development programs. So it is necessary to optimize community participation in the utilization of village funds through empowerment activities so that they can be carried out properly.

**Keywords: Utilization Of Village, Participation; Empowerment**

# **THE EMPOWERMENT MODEL FOR THE POOR BASED ON SPIRITUAL SKILLS AND LIFE SKILLS IN PRODUCTIVE AGE OF THE YOUTH AT RUMAH GEMILANG INDONESIA**

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## **ABSTRACT**

Rumah Gemilang Indonesia is a community institution that focuses on empowering youth of productive age. This study aims to describe the empowerment model of productive age youth at Rumah Gemilang Indonesia LAZ AL-Azhar. This research was studied qualitatively through a descriptive approach. The method of data collection is done by interview, observation, and documentation. Data analysis used interactive analysis model of Miles and Huberman. The model of empowering the poor through the Productive Youth empowerment program built in this study refers to the program evaluation model framework developed by Kaufman and Thomas (1980). This model was chosen because it places more emphasis on a system, namely an empowerment system that includes inputs, processes, outputs and outcomes. The results showed that youth empowerment that combines life skills with spiritual skills can be an effective model to reduce poverty. In conclusion, the empowerment model compiled by RGI LAZ Al-Azhar uses an approach that combines the concept of a work training center in the form of a short course with a boarding school platform. So that in its implementation the material taught in the Empowerment Process through two approaches, namely life skills and spiritual skills. The process of empowering youth through life skills in poor families is carried out by RGI through three stages, namely: 1. awareness process, 2. transformation process 3. Process of increasing intellectual abilities and skill proficiency. The process of youth empowerment through spiritual skills in poor families is carried out by RGI through 3 stages, namely: 1 awareness through self and character surgery activities 2. Implementation of spiritual care community programs through daily worship routines, weekly activities, and monthly activities. 3. Evaluation

**Keywords: Empowerment Model; Spiritual Skills; Productive Age**

## **BUSSIENES MANAJEMENT**

### **COMPARISON YOUTUBE CONTENT BEFORE COVID AND DURING COVID BY NINGSIH TINAMPI**

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#### **ABSTRACT**

The development of media content nowadays has a lot influence on the needs of audience whether in the fields of information, education, entertainment and influences audience who consume it. The presence of YouTube that's not only used as intermediary for the audience but can monetized content that's created into revenue. Seeing this monetization phenomenon, content creators try to present unique shows to get attention of the public. One of them is YouTube platform from Ningsih Tinampi, whose content often controversial because it's considered not by the principles of values that some audiences believe. She uses her profession as a "modern healer" on her personal YouTube. During the Covid-19 pandemic, the number of subscribers to Ningsih's YouTube account increased from 2.5 million to 2.89 million, with average viewership of more than a thousand. This pandemic was used by Ningsih in managing content to be more interesting, such as the more "Clickbait" title, frequent Live on YouTube, etc. Management content has also undergone transition from before the pandemic by Ningsih herself, and now being carried out by more professional team. This research was conducted to determine the comparison of content management by Ningsih Tinampi during before and after the pandemic in maintaining its existence on YouTube. The method used is content analysis with a qualitative approach. The activities carried out in this research are observation and collecting data based on the YouTube content of Ningsih Tinampi, and collecting secondary data to complement the results of observations that have been made.

**Keywords: Comparison; Content; Ningsih Tinampi**

# **CAMPAIGNING ENVIRONMENTAL CONSERVATION DURING THE PANDEMIC: A SOCIAL MEDIA RECEPTION ANALYSIS**

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## **ABSTRACT**

In modern days, environmental journalism is deemed essential as the issue of global warming is alarming to a greater extent. In response to extreme climate change, scientists urge people around the globe to take an active part in preserving the environment. Before the pandemic, many activists protested on the streets, met people in the malls, invited youngsters to join an environmentalist organization and contribute to conserve the earth along with its wildlife. During the Covid-19, some of these activities have been hindered by the health protocols. This does not mean that activists must retreat from pursuing the cause and stop their efforts: they move to online campaign using the social media. Accordingly, the researchers conducted a reception analysis of environmental conservation campaign contents shared on social media. The study was conducted in a green campus of Malang city, Universitas Brawijaya. The subjects were students from several faculties. The qualitative reception analysis method was employed. This study's results can serve as a guidance for universities in implementing green campus concept and for other organizations campaigning environmental conservation through social media. Additionally, it is expected that the results can reveal the effective message-delivery to the millennials and how well they receive the campaign-message. It ultimately leads to the primary purpose: to make the millennials take part in conserving the environment on their daily basis.

**Keywords: Campaigning Environmental; Conservation; Reception Analysis**

# **BUILDING CONSTRUCTIVE-COMMUNICATIVE MODEL FOR RURAL COMMUNITIES IN USING DEATH RITUAL AS A MANIFESTATION OF SOCIAL VIRTUE**

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## **ABSTRACT**

This study aims to elaborate the meaning of the Rukun Kematian as social virtues; identify the process and implications of the institutionalization of Rukun Kematian and their implications for local initiatives in rural development; and to elaborate communicative actions from Rukun Kematian initiators and the institutionalization of Rukun Kematian.

This research was conducted in Pajeng Village, Gondang District, Bojonegoro Regency, using a qualitative approach with phenomenological methods. The data collection techniques used in this research are documentation, participatory observation, in-depth interviews, and FGD (Focus Group Discussion). Research conducted in selected villages, namely Pajeng Village, Gondang District, Bojonegoro Regency, shows that: 1) Social virtues are constructed through configuration and interpolation between meanings with personal-transcendental and social-reciprocal dimensions, quality of representation, shared intention (collective intention) to achieve social and economic benefits, and the presence of generative dialogue; 2) The process of institutionalizing the values of social virtue is determined by the type of validity claims discussed in the public sphere. These claims will color the institutional model. The derivation (derivative) of the institutional model will affect various local initiatives and forms of innovation by citizens in contributing to village development; 3) The communicative actions of the initiators of the Rukun Kematian towards residents in building a mutual understanding are not solely based on two-way rationality and communicative competence. This research also produces a "Constructionist-Communicative Analysis Model for Rural Communities" as well as a mathematical formulation to identify a generative self-governance model in rural communities.

**Keywords: Building Constructive; Communicative Model; Social Virtue**

# **ESTIMATING IMPACT OF COVID 19 OUTBREAKS ON REGIONAL ECONOMIC'S DEVELOPMENT**

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## **ABSTRACT**

Indonesia officially declared the first case of the corona virus infection that caused Covid-19 in early March 2020. Since then, various counter measures have been taken by the government to reduce the impact of the Covid-19 outbreaks in various sectors. Restrictions on community activities affect business activities which led to economics declination. Almost all sectors are affected. This study aims to estimate the impact of the COVID-19 outbreaks on the regional economics development. This research using composite index to estimate the impact of the COVID-19 outbreaks on the regional economic development and this was carried out by building an index composite showing the severity of health on one hand and economic performance on the other. This research shows, 34 provinces in Indonesia can be classified into four quadrants: 1) health improving and the economy is improving, 2) health is improving and the economy is deteriorating, 3) health worsening and the economy is improving, and 4) health is deteriorating and the economy is deteriorating. This study provide suggestions in order to be more accurate in identifying problems and finding precise solutions, the local government should collect data and research on economic aspects in a fast and precise way, namely 1) the level of the COVID-19 outbreak in the province, 2 ) risk factors for natural disasters, 3), factors characteristic of economic problems, 4) fiscal burden factors.

**Keyword: Covid 19 outbreaks, economic development, economics crisis, regional economics**

# **MEDIA LITERACY IN PREVENTING THE SPREAD OF RADICALISM IN THE MILLENNIAL GENERATION**

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## **ABSTRACT**

This study aims to deepen the understanding of the millennial generation in Malang on the importance of media literacy skills in preventing the spread of radicalism through social media. The units of analysis in this study were students from Brawijaya University and Muhammadiyah Malang University who were active in campus organizational activities. Researchers use a qualitative approach with an interpretive paradigm in order that researchers can obtain a more detailed perspective or point of view of the informant. The results showed that the millennial generation already understands the concept of media literacy and practices it in using social media so that radicalism spread through social media cannot influence them.

**Keywords: Media Literacy; Preventing; Millennial Generation**

# **MEDIATING EFFECTS OF CAPITAL STRUCTURE IN THE FINANCIAL PERFORMANCE MANUFACTURER COMPANY IN INDONESIA**

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## **ABSTRACT**

This research aims to Analyze Liquidity on Profitability through Capital Structure in Manufacturing Companies in Indonesia. This research is used 74 observation of financial statements for manufacturing companies listed on the Indonesia Stock Exchange. Path Analysis was used to analyze liquidity on profitability through capital structure. The results of the research are liquidity is significant influence to capital structure. Liquidity is significant influence to profitability. Capital structure is significant influence to profitability. The capital structure is not able to mediate the relationship between liquidity and profitability. It is expected to be able to deepen the terms of cash and inventory. Debt for companies can be both positive and negative. Companies that have a lot of debt can experience financial difficulties. Because the impact caused by debt is clear, it is necessary to determine the proportion of debt use.

**Keywords: Capital structure, liquidity, profitability, Manufacture, Mediating**

## **RESISTANCE AND DEVELOPMENT STRATEGY OF RELIGIOUS TOURISM DESTINATION IN THE ERA OF PADEMY COVID19**

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### **ABSTRACT**

Religious tourism inIndonesia is growing rapidly, along with the improvement of the community's economy. Culture and the community's beliefs are among the factors affecting it. Greater Malang has many potential and developable religious tourism destinations. Learning from the two well-known religious tourism destinations, we aim to uncover factors that make tourists loyal to these two religious tourism destinations. These factors are used for mapping and formulating marketing strategy. This research is essential and a noveltyas there has not been any research discussing the same theme. These two well-known religious tourism destinations do not have a marketing strategy in their management. They are simply run as they are and have not been professionally managed. With the qualitative method, the study results show that culture-based faith groups as a target market for religious tourism, the mystical and unique story as positioning, and showing routine attractions to build interest are the three main keys that attract tourists to come to religious tourism destinations repeatedly. The results of this study can be used as a reference to develop marketing strategies for existing religious tourism destinations and improve the potential of religious tourism in Greater Malang. Further research is essential to see whether this research's results apply to different areas or countries with the same community characteristics.

**Keywords:** religious tourism, tourist destinations, rituals, repeat visits, marketing strategies.

**THE RESPONSE OF MICRO, SMALL AND MEDIUM ENTERPRISES IN  
THE FACE OF THE CORONA VIRUS DISEASES (COVID-19)  
PANDEMIC SITUATION**

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**ABSTRACT**

Several business actors run the economy of a country. One of them is Micro, Small, and Medium Enterprises. MSMEs are a place for people to be productive through labor-intensive businesses. However, currently, MSMEs players and several other business actors face tough challenges because they meet the Corona Virus Disease-19 (COVID-19) pandemic. This pandemic has a terrible impact on human life, including the effects on the economy of a country. Therefore, with this research, we can see how business actors respond to facing Covid-19 and what assistance is needed by business actors in the current pandemic situation. This research conducted using qualitative research methods. Data collection uses literature studies. The type of data used is the Covid-19 Survey Result Data on Business Actors in Indonesia issued by the Central Statistics Agency and other documents or literature related to the research theme. Data sourced from several kinds of literature were collected then analyzed by understanding how the author's interpretation describes the response of MSMEs in the face of the Covid -19 Pandemic situation. The results showed that most business actors did not reduce their employees, and they needed government assistance in terms of capital and electricity bill relief.

**Keywords: Response Of Micro, Medium Enterprises, Covid-19**

# **RETAILER'S STRATEGY IN RESHAPING CONSUMERS' SATISFACTION AND WELLBEING DURING A PANDEMIC**

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## **ABSTRACT**

The Covid-19 pandemic has given several challenges to retailers. Changes in the situation caused by this pandemic resulted in retailers having to make new strategies in order to satisfied consumers as well as pay attention to consumer wellbeing during their shopping experience. Changes also happened in consumer's perception of shopping satisfaction during the pandemic. The purpose of this research is a descriptive study analyze which the result will explain whether the strategy being carried out by retailers during pandemic has create consumers satisfaction and pay attention to consumers wellbeing. Data obtained from observations, interviews, and surveys, from the perspective of the retailers and consumers, with the goal to help retailers to handle the pandemic situation with the right strategy. The result of this research are showing that several strategies are likely favorable in shaping consumer satisfaction and wellbeing, such as providing online shopping and hygiene facilities, and doing consumer social responsibility to contribute help the society during the pandemic.

**Keywords: Strategy; Satisfaction; Wellbeing**

## **OVERVIEW OF THE OPORTUNISTIC CUSTOMER CLAIMING CREDIT CARD: CONSUMER VS COMPANY**

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### **ABSTRACT**

Credit cards are now part of the lifestyle of urban people. There are not many complaints that come. Complaints from business or individual customers are of course something that must be avoided. If the complaint is present in the middle of running a business, it is feared that it will make the business reputation worse. The purpose of this study is to find out various reasons for complaints that come from opportunistic customers and the accuracy of employees handling opportunistic consumers who always try to justify the complaints they give and want to get fair feedback from the company without knowing the truth of the existing problems. This research is focused on a qualitative phenomenological approach with 8 informants, namely credit card holders and employees of PT Bank "XYZ". The validity of the data by triangulation, namely the source. The results show Customer complaints on PT Bank "XYZ" credit cards are usually due to problems or complaints such as: delays in sending billing bills, cases of disputes or bills that have never been made by the customer, the complexity of resolving customer complaints, and from that weakness will make consumers take advantage of the situation with a reward material for the complaint. Research helps companies to be alert and alert to opportunity claimers, because complaints that deliberately take advantage of circumstances caused by bank officers' negligence can cause losses to the bank.

**Keyword: opportunistic consumers, handling complaints, banking.**

## **THE ADVANTAGES OF ONLINE TRANSPORTATION SERVICES IN ACADEMIC SYSTEM**

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### **ABSTRACT**

Online transportation service are currently hotly discussed, because application-based ordering is easy to download by smartphone users with both Android and iOS systems. This online transportation service is in demand by most people of Gresik city. Student activities in general are also inseparable from the interests of other supporters. Likewise, lecture activities are full of discipline and require students to be present on time. So it is directly related to the use of transportation, especially online transportation services. Based on the phenomenon of the large number of online transportation service users among young people, especially students, it encourages the author to do research on the interests and motivation of students who prefer to use online transportation services rather than public transportation. This study uses a qualitative descriptive method with student informants who often use online transportation services in their daily activities, especially in the fields of education and learning as key informants and to collect data through 3 kinds of methods, interviews, observation and documentation. The results of this study indicate that this online transportation service is very helpful for students for shuttle activities to campus, to take them to buy books, deliver books and make deliveries made and meet their needs. The ease of access and the many efficiencies provided by this online transportation service have made many people use this online transportation service.

**Keywords: Services, Transportation, Online, Students, Activities**

## **LEAN MANUFACTURING ANALYSIS TO INCREASE THE PROFIT OF SMALL MEDIUM ENTERPRISE**

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### **ABSTRACT**

This study aims to analyze the Lean Manufacturing method in production to increase the profit of Small Medium Enterprise (SME). This type of research is qualitative research. Using the Lean Manufacturing suppression method, the existing waste in Puduk production, Milkfish, and Jubung can be identified. The analysis used in this study is an interactive model. The results of waste identification using Tigerwoods waste in the production field are Inventory, Ergonomics, Waiting, Overprocess, Defect, and Skill. The root causes are then searched using 5-Why's in Root Cause Analysis (RCA), then assessed through Risk Analysis and mapped in the risk assessment matrix to determine the root causes at extreme risk. It is known that severe dangers in the field of slave production are inventory and Defect. In the production of Otak – otak Milkfish is Waiting and Skill, while in Jubung, the show is inventory and Skill. The extreme risk is then given a repair effort to minimize and reduce the waste in their respective fields of production.

**Keywords: Lean Manufacturing, Tigerwoods waste, 5-Why's, Root Cause Analysis, Risk Analysis, and Proposed Improvements.**

**THE ROLE OF STRATEGY TOWARDS BUSINESS PERFORMANCE IN  
HIJAB SMALL BUSINESSES (CASE STUDY ON AZKY COLLECTION IN  
BUNGAH DISTRICT, GRESIK)**

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**ABSTRACT**

This research is to describe and explain the role of the strategies used and their effects in improving business performance in the Azky Collection hijab small business in Melirang Wetan Village, Bungah District, and Gresik Regency. This research Methodology uses a case study approach with qualitative descriptive research methods. The results show that a strategy that focuses on changing consumer tastes and carrying out several innovations has a direct role in maintaining and improving business performance at Azky Collection, as evidenced by an increase in the number of sales that continue to increase. Conclusion -The strategy used by AzkyCollection is a focus differentiation strategy that can be seen in the sales results that experience an increase every year. Research Implications -This research contributes to the application of strategy and performance management in small businesses (SMEs), as well as the religious value that exists in hijab. Research limits -Research is only conducted in 1 (one) small business (UKM), the next research can be done by comparing with several other small businesses.

**Keywords: Hijab, Strategy, Performance, SMEs**

## **BRIDGING SUPPLY CHAIN CONCEPT IN HEALTH CARE SERVICES A SYSTEMATIC REVIEW AND FUTURE CHALLENGE**

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### **ABSTRACT**

Health services, over time, experience changes and developments by promoting many stakeholders to support excellent service, the use of technology has been implemented in various health services ranging from hospitals, clinics, to puskesmas. This study tries to find a bridge between supply chain management concepts in health services, and what it future challenge, aided with two research question (1) the trends of healthcare supply chain and (2) future research avenues that less-explore. This study uses a literature study base, and Emerald Insight platform was chosen as the platform to be reached for the relevant journals, limited to the peer-reviewed academic articles published in English after 2005. Close with DI (Density Index) score as a main frame for induce future research theme in healthcare supply chain. This study concluded that research development in the healthcare supply chain area is still ongoing and will be possible to develop, as long as health services continue to operate and strive to improve their performance. Five themes consisting of 22 different topics were found, (1) framework development, (2) case study literature, (3) technology aided, (4) healthcare derivative of service, and (5) method in term of supply chain and operation. Most of the healthcare supply chain studies followed grounded theory and qualitative survey methods. This study thus proposes five main future healthcare supply chain research points (1) framework modelling, (2) using healthcare organization as a sample case, (3) RFID influence, (4) pharmaceutical supply chain, and (5) VMI approach.

**Keywords: Supply Chain, Supply Chain Management, Healthcare, Systematic Literature Review.**

**BUILDING STRATEGIC MARKETING OUTCOMES MODEL BASEDON  
RELATIONSHIP OUTCOMES IN HOSPITALITY INDUSTRIES –A BRIEF  
STUDY ON EAST JAVA REGION**

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**ABSTRACT**

This study is aim to build basic model of strategic marketing outcomes based on relational marketing theory. According to that purpose this study confirming and testing the impact of variables in relationship outcomes as of relational commitment, marketing cooperation, long-term relationship values (loyalty, closeness relationships, and chain messages); and the impact of long term relationship values with strategic marketing outputs (synergy of cooperation, excellence positional competing and marketing performance). This study was conducted on hospitality industries in East Java using quantitative approach and multivariate statistics. Among hospitalities industries selected for this research is 3 –4 Hotels that is already listed in Perhimpunan Hotel danRestoran Indonesia, East Java Region for more than 20 years. The result of this study shows that, for obtaining strategic marketing outcomes the companies need to constitute social capital from the values of long-term relationships. Companies should positioned sinergetic cooperation as a mediating variable between behavioral outcomes in relational marketing concepts with strategic marketing results. So, the originality findings in this study is the relationship between marketing organizations marketing performance is higher when based on relationship marketing theorySo the originality findings on this research suggest thatmarketing relationship between organisations will achieve higher marketing outcomes only if the companies or organisations based their efforts on relationship outcomes in marketing relationship theory. The recommendations of this study, suggest companies to build their marketing concept based on an integrated market base and resource base. Also re-inforcing their relational marketing structures.

**Keyword: Strategic marketing, Relational marketing, Customer Value, Marketing Outcomes**

# **CUSTOMERS' SATISFACTION AND PREFERENCES USING SENTIMENT ANALYSIS ON TRAVELOKA: THE CASE OF YOGYAKARTA SPECIAL REGION HOTELS.**

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## **ABSTRACT**

The rapid development of internet use today shows a shift in technology that is increasingly leading to online-based media. Consumers tend to browse the completeness of product and service information via the internet by making purchases online because of limited time and perceived convenience. We analysed some of the features that hotel customers need using customer reviews. This study uses hotel customer reviews on the Traveloka website. The purpose of this study was to determine the important factors that influence tourists in choosing hotels based on hotel customer reviews. We use HBDScan algorithm and machine learning approaches to identify hotel customer segments. We found that the segmentation of tourist preferences and satisfaction is an important stage in behavioural analysis to improve the quality of hotel products and services. This analysis can improve the understanding of hotel managers about different market segments according to the level of customer preference and satisfaction. The findings of this study will help managers to set priority instructions for enhancing appropriate hotel features and use online customer reviews to improve customer satisfaction and hotel performance.

**Keyword: Customer satisfaction, Preferences analysis, Online reviews Hotel.**

**PERFORMANCE APPRAISAL AS MANAGER'S EFFORT TO INCREASE  
EMPLOYEE PRODUCTIVITY AT TEXTIL COMPANY PT. INDONESIAN  
TOOTAL THREAD IN PASURUAN**

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**ABSTRACT**

In the implementation of achieving goals is not an easy thing for the business world, increasingly fierce competition is a difficult barrier. These issues require management to plan, organize, direct and supervise the resources that are owned appropriately and with the useful results. One of the efforts to increase employee productivity in the company is performance appraisal. With this performance appraisal, employee performance can be improved according to their field of work. The efforts that have been made by the company in assessing employee performance are by assessing responsibility, loyalty, and obedience in the hope that employees will work in accordance with the directions given for the achievement of company goals. In research entitled "Performance Appraisal as an Effort Manager in order to increase the productivity of employees in order to increase the productivity of employees ", aims to determine the effect of performance appraisal as an effort of managers to work productivity of employees, by taking research studies on the textile company" PT. Total Thread Indonesia in Pasuruan. In accordance with the purpose of this study, the analysis method used to test the hypothesis is a statistical method, where the stages of research analysis use SPSS, as a tool and data obtained from employees of the Pasuruan textile company as many as 25 respondents. carried out based on statistical methods, it can be obtained that in essence all the performance appraisal factors given to employees together have a significant influence on employee productivity, because performance appraisals in the form of responsibility, loyalty, and obedience can lead to good will towards employees. Employees in carrying out the tasks assigned by the company and responsibilities have the most significant influence on work productivity, because with responsibility employees can complete their work properly.

**Keywords: Performance appraisal, Productivity, Textile Company**

## **PRODUCT DESIGNS ANALYSIS FOR INCREASING THE VALUE ADDED SALES OF HAND PAINTED MASK IN THE COVID 19 ERA**

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### **ABSTRACT**

In the business era of covid 19, there is also competition which cannot be resisted in every sector. One of them in the handicraft sector. In this industry is very interesting to be made research because public consumes also products beside food in their daily life to keep healthy. Many industries from factories until small UMKM / small medium enterprise competing in the same products. Foods, drinks, mask, face shield and clothes that makes the competition getting higher and higher. All kinds of products need to make them healthy to keep the people can get through their life safer. It will need many variations designs to give interest for the consumers to buy the product. This research purpose is to know the influence of the customer to buy the hand painted masks comparing to the original ones. We are doing research in mask products in Yuliart collection Surabaya in the COVID era. The title is product designs analysis for increasing the value added sales of hand painted mask in the covid 19 era. The research method that we use is descriptive qualitative with SWOT analysis. The result that can be shown from the data and from the SWOT analysis showed that there are strength, weakness, opportunity, and threaten of the products that can be made for facing the hard competition in the handicraft market mask for keeping healthy especially hand painted mask . There is a significant difference in the profit gain by comparing the product mask in original without any accessories and with the other hand painted design mask.

**Keywords: product design, SWOT analysis, value added, hand painted Mask**

## **EMPLOYEE BANKING POLICY IN FACING TECHNOLOGICAL DEVELOPMENT**

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### **ABSTRACT**

The purpose of this study was to determine banking policies in the field of employees in facing technological advances. Moreover, banking reduces branch offices and sub-branch offices because their functions can be replaced with technology. Based on Indonesian Banking Statistics data released by the Financial Services Authority, until the end of 2019 the number of commercial bank offices reached 31,127. This figure is down 1.54 percent from the 2018 position of 31,609 offices. The number of commercial bank offices has decreased by 5.89 percent compared in 2015 which reached 32,963. For example, Bank Central Asia and CIMB Niaga. The two banks recorded a decrease in the number of offices during this period. BCA has 1,014 offices as of 2019. In fact, 4 years earlier the office reached 1,182. CIMB Niaga points out more extreme conditions. This private bank has almost halved its number of offices in the 2015-2019 period, from the original number of 806 per 2015 to 418 offices last year. A similar condition was experienced by Mandiri Bank. As of 2019, this bank has 2,589 offices throughout Indonesia. In fact, in 2014 Bank Mandiri offices still 2,463. This study used a qualitative research method, namely the collection of in-depth interviews with active banking employees. Researchers also conducted focus group discussions among active bank officials. As a result, there is a banking policy to retain employees. To cope with the burden of the company, efficiency and transfer of employee functions were carried out.

**Keywords: Employee Banking, Technological, Development**

## **RURAL TOURISM SUSTAINABLE BUSINESS PERFORMANCE: DYNAMIC CAPABILITY PERSPECTIVE**

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### **ABSTRACT**

Currently, Indonesia has a product portfolio of promising tourist destinations, especially rural tourism which has good potential in the future. Therefore, it is important for tourism managers to develop sustainable tourism in terms of performance, because thus managers have a complete understanding of performance rural tourism business. In terms of managing a sustainable tourism village, managers must realize the importance of dynamic capabilities as a measure of sustainable business performance. The research investigates the effect of dynamic capabilities on the performance of a rural tourism sustainable business. Hypotheses were tested with regression equations with WarpPls software. The results explain that the dynamic capability of the sensing dimension has an effect on the performance of sustainable tourism business, the dynamic capability of the seizing dimension has no effect on the performance of a sustainable tourism business and the dynamic capability of the reconfiguring dimension has no effect on the performance of sustainable tourism.

**Keywords: Tourism; Sustainable; Business; Performance**

## **ACCOUNTING**

### **SHARIA BOND RATING MODEL BASED ON FINANCIAL RATIOS**

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#### **ABSTRACT**

A bond rating is a rating that is given to provide information to assess the ability of the bond issuing institution to pay bonds when they mature. The purpose of this study is to examine the relationship between Islamic bond ratings and financial ratios. The number of research samples is 39 bonds issued on the Indonesian stock exchange. The sampling method is purposive sampling. Linear regression was used for data analysis. The results showed that liquidity, solvency, profitability, and productivity can influence bond ratings. Investors should pay attention to financial ratios when investing.

**Keywords: bond rating, sharia, sukuk, financial ratios**

# **GOOD UNIVERSITY GOVERNANCE TO IMPROVE STUDENT SERVICE AND TRUST (STUDY AT THE UNIVERSITY OF MUHAMMADIYAH GRESIK)**

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## **ABSTRACT**

Good university governance is a concept of higher education system higher education that sets goals, implements and manages good institutions physical, financial, human resources, academic and student achievement. The purpose of this research is to analyze the impact of implementing a good university governance (GUG) in an effort to improve student service and trust. Qualitative methods are an option in this study using an approach phenomenology, where data collection is done by interview techniques, studies literature, and study documentation on three informants. Data collection in research This is done by going directly to the research location and reviewing it with existing literature review. The results showed that the implementation of governance good university governance cannot immediately give trust to students without any tangible evidence that can be felt, namely excellent service.

**Keywords: Good University Governance, Excellent Service, Trust**

**ANALYSIS OF THE EFFECT OF THIRD PARTY FUNDS, CAPITAL ADEQUACY RATIO, NON PERFORMING FINANCING, OPERATIONAL EXPENSES AND OPERATIONAL INCOME (BOPO) ON THE PROFITABILITY OF SHARIA BANKS (EVIDENCE FROM INDONESIA)**

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**ABSTRACT**

This study aims to study the effect of Third Party Funds, Capital Adequacy, Non-Performing Loans, Operational Expenses and Operating Income on the profitability of Islamic banks. The sample of this study was determined by purposive sampling and obtained 12 banking companies listed as Islamic commercial banks in the Financial Services Authority (2015-2018). Data obtained from secondary data on banking company annual reports (2015-2018). The results showed that capital adequacy and the comparison of operating expenses to operating income had a significant effect on profitability. Meanwhile, third party funds and non-performing loans have no effect on profitability. Simultaneously all independent variables have an effect on the dependent variable. Research indicates that Islamic banking requires additional capital while increasing the efficiency of its operational activities.

**Keywords: Effect Of Third; Capital Adequacy; Operational Income**

# **INFLUENCE OF ABILITY, EXPERIENCE, AND INDEPENDENCE OF INVESTIGATIVE AUDITORS ON EFFECTIVENESS IMPLEMENTATION OF AUDIT PROCEDURES TO UNCOVER FRAUD**

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## **ABSTRACT**

This study aims to study the effect of Third Party Funds, Capital Adequacy, Non-Performing Loans, Operational Expenses and Operating Income on the profitability of Islamic banks. The sample of this study was determined by purposive sampling and obtained 12 banking companies listed as Islamic commercial banks in the Financial Services Authority (2015-2018). Data obtained from secondary data on banking company annual reports (2015-2018). The results showed that capital adequacy and the comparison of operating expenses to operating income had a significant effect on profitability. Meanwhile, third party funds and non-performing loans have no effect on profitability. Simultaneously all independent variables have an effect on the dependent variable. Research indicates that Islamic banking requires additional capital while increasing the efficiency of its operational activities.

**Keywords: Influence Of Ability; Experience; Independence**

**THE INFLUENCE OF PROFESSIONAL SKEPTICISM, INDEPENDENCE,  
COMPETENCE, AND EXPERIENCE ON AUDITOR'S ABILITY TO  
DETECT FRAUD**

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**ABSTRACT**

This study aims to determine the effect of professional skepticism, independence, competence, and experience on the ability of auditors to detect fraud. The design of this research is causality research or causal relationship. The sample used in this study amounted to 74 respondents who work as auditors at public accounting firms, with the sampling technique is purposive sampling. The data analysis method used is multiple linear regression analysis. The results showed that there was a positive influence on professional skepticism, competence and experience on the ability of auditors to detect fraud. However, the independence of the auditor's ability to detect fraud has a negative effect. The conclusion that can be drawn from this study is that competence is the most necessary thing so that auditors can detect whether there is fraud quickly and accurately.

**Keywords: Influence Of Professional; Independence; Competence**

# **THE EFFECT OF BOOK-TAX CONFORMITY, INVESTMENT OPPORTUNITY SET, AND AUDIT QUALITY ON EARNINGS RESPONSE COEFFICIENT**

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## **ABSTRACT**

The purpose of this study is to determine the impact of book-tax conformity, investment opportunity set, and audit quality to earnings response coefficient. This research is conducted on Indonesian manufacturing company listed in Indonesia Stock Exchange 2016-2018. The data of this research are obtained from the financial statements of the companies and analyzed using multiple linear regression method. The results of this study concluded that book-tax conformity, investment opportunity set, and audit quality have significant impact on earnings response coefficient. These results indicate that investor has consider the conformity between income tax and accounting report, market as well as book value of a company assets, and the quality of an audit that the company proceed.

**Keywords: Effect of Book; Tax Conformity; Investment Opportunity Set**

**THE EFFECT OF CHARACTERISTIC BOARD OF COMMISSIONERS AND ORGANIZATIONAL CULTURE ON FINANCIAL RISK DISCLOSURE IN INDONESIAN CONSUMER GOODS INDUSTRY COMPANIES**

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**ABSTRACT**

The objective of this research is to determine the effect of characteristic board of commissioner and organizational culture on financial risk disclosure in consumer goods industry companies. This research is a quantitative research and uses a secondary data obtained from Indonesia Stock Exchange (2015-2017) and processed using SPSS 25 program. The result of this researched showed that clan culture has effect on financial risk disclosure. While commissioner background, number of board meetings, proportion of independent commissioners, adhocracy culture, market culture and hierarchy culture have no effect on financial risk disclosure.

**Keywords: Effect of Characteristic; Board of Commissioners ; Organizational Culture on**

**THE EFFECT OF DIVERSIFICATION STRATEGY ON THE CAPITAL STRUCTURE OF COMPANIES WITH FAMILY OWNERSHIP AS MODERATING VARIABLES IN INDONESIAN MANUFACTURING COMPANIES**

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**ABSTRACT**

The purpose of this study is to examine the effect of related diversification and unrelated diversification towards capital structure and the effect of family ownership on the relationship between diversification and unrelated diversification towards capital structure. This research use quantitative method and involves 135 manufacturing companies listed in Indonesia Stock Exchange over period 2015-2017. The result of this research showed that related diversification affect negatively significant towards capital structure, unrelated diversification affect positively significant towards capital structure and family ownership strengthen the relationship between related diversification and unrelated diversification towards capital structure.

**Keywords: Diversification Strategy; Capital Structure; Organizational Culture on**

## **ENTREPRENEURSHIP**

### **DETERMINING FACTORS IN THE DEVELOPMENT OF RELIGIOUS TOURISM DESTINATION MARKETING STRATEGY (A CASE STUDY IN GREATER MALANG)**

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#### **ABSTRACT**

Religious tourism in Indonesia is growing rapidly, along with the improvement of the community's economy. Culture and the community's beliefs are among the factors affecting it. Greater Malang has many potential and developable religious tourism destinations. Learning from the two well-known religious tourism destinations, we aim to uncover factors that make tourists loyal to these two religious tourism destinations. These factors are used for mapping and formulating marketing strategy. This research is essential and a novelty as there has not been any research discussing the same theme. These two well-known religious tourism destinations do not have a marketing strategy in their management. They are simply run as they are and have not been professionally managed. With the qualitative method, the study results show that culture-based faith groups as a target market for religious tourism, the mystical and unique story as positioning, and showing routine attractions to build interest are the three main keys that attract tourists to come to religious tourism destinations repeatedly. The results of this study can be used as a reference to develop marketing strategies for existing religious tourism destinations and improve the potential of religious tourism in Greater Malang. Further research is essential to see whether this research's results apply to different areas or countries with the same community characteristics.

**Keyword: Determining Factors; Development of Religious; Marketing**

## **ANALYSIS OF WOMEN PARTICIPATION IN IMPROVING FAMILY INCOME IN SADE LOMBOK TOURISM VILLAGE**

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### **ABSTRACT**

In a family, the role of women is not only as a housewife (domestic) but also in the public sector. Some of the motivations that encourage women to work are husband is not working, low household income, while the number of family dependents is quite high. Sasak Sade women work in the public sector as spinners, weavers, and weaving traders because of their economic motives they want to help the family economy. The role in the family becomes more visible. Income can be used to support the family's economic needs. In addition, women have the same economic responsibility as men, and some are even bigger. Sasak Sade women are able to manage their functions well in both the domestic and public sectors. It can be seen that age, working time, and number of children simultaneously have a significant effect on the family income of Sasak Sade women, while education does not affect their income because Sasak Sade women work as farmers and weavers so the need of higher education is not required. Sasak Sade women are able to manage their functions well in both the domestic and public sectors. Even though they have been active in the public sector by working as weavers and trading, they never forget about the role in the domestic sector.

**Keyword: Analysis Of Women; Participation In Improving; Sade Lombok**

## **VILLAGE COMMUNITY BUSINESS IN MAINTAINING TRADITIONAL FOOD "OPAK LADU" BASED ON CREATIVE ECONOMICS**

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### **ABSTRACT**

This study aims to determine the existence of traditional Opak Ladu food in society, the development of producers, and the efforts made to maintain based on a creative economy so that it is able to be a solution to the problems of economic inequality and welfare. This study used descriptive research with a qualitative approach in order to be able to reveal systematically, factually, and accurately the facts and characteristics of the research object. The results of this study indicate that the people of Lamongan still hold a hereditary tradition of serving Opak Ladu as a special dish on Idul Fitri so that sales increase almost 10 times, but on weekdays the demand is very small because consumers are the older generation only while the younger generation has more fast food. Serving. This small demand resulted in a decrease in the number of producers, only 6 of whom were old. The younger generation are reluctant to become producers and prefer to migrate to look for work. The community and local government have conducted entrepreneurship training efforts for producers and housewives, and the village government has included the products at various product exhibitions, but the results have not been able to increase demand. Suggestions In the future, it is necessary to optimize real steps for the creative economy in the form of updating innovative marketing strategies, creating mutual product identities, approaching product communication through product displays & Digital Marketing, and establishing cooperation with business stake holders.

**Keywords: Village Community; Business In Maintaining; Traditional Food**

## **IMPLEMENTATION OF THEORY Z WILLIAM OUCHI IN PESANTRENPRENUR: STUDY ON ORGANIZATIONAL CULTURE**

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### **ABSTRACT**

Life-time employment, Slow promotion and evaluation (evaluation and promotion process is relatively slow); Non specialized career path (wide career path); Collective responsibility (responsibility as a group); Implicit control mechanism (control attached) and Wholistic concern (thorough attention to employees) is a basic principle Theory Z was initiated by William Ouchi. His findings, surprising the Americans until there is concern at the decline in the level of competitive advantage in global business. What's wrong with the findings Ouchi? He dissected the Japanese culture. As a result, social and organizational culture in Japan a high potential to affect productivity. How with in schools? Culture (social and cultural organizations) in boarding resembles, --although not the same-- with Japanese culture. When observation and deepening in the field, it seems schools we observed a tendency to follow the seven basic principles wake William Ouchi. The result is surprising: (1) adherence of communal culture pesantren. Organizational decision made jointly (decision true fraternity) with the blessing kiai (submission to kiai without reserve); (2) Decision-making at the school rather sluggish. They are more likely to communicate with a group of true brotherhood together. Of course the decision before the run, first performed istikharah process (for guidance from God) by their mutual kiai; (3) Treating the students are not within the boundaries of formal ties, but ties mitsaqan galidhan (a strong emotional bond, a bond child and father). Not only limited to humane treatment, but entered the bond niches ukhrawiyah (akherat) up to the rest of their family; (4) The monitoring is not just "sticks", but rather from the inherent (bathiniah supervision); (5) Responsibilitinya not only the group, but rather of a group, namely "shared responsibility in a group tied true brotherhood". Love, pleasure and sorrow felt together; (6) They work istiqamah-qana'ah (accept what their position), do not move to another company with a higher position (better achievement). Do not dismiss unilaterally if no shar'i reason (violating religious norms). If dlam carries on business in schools experiencing problems, they prefer to lower wages. Avoiding lay-offs in the activities of the organization. Even, together they agreed to work without being rewarded. Of course spiritualistic underlying motivation. Loyalty to corp schools is more important than profession. Promotion and evaluation tends to be slow. Salary increase is not based on merit, but on average formula of students; (7) Do not take the path of a career, but more likely the work done by their compromise with the more senior group. Work-disk of his job is more dynamic because it is done for a compromise. Of course according to their expertise. As a result, schools cultural factors (social and organizational culture) greatly affect the productivity performance of operating in schools, compared with similar conventional company.

**Keywords: Pesntrenpreneur (Islamic Boarding School Based On Entrepreneurship, Organizational Culture, Theory Z.**

## **TOURISM VILLAGE DEVELOPMENT STRATEGY TO INCREASING TOURIST VISITS**

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### **ABSTRACT**

The purpose of this study was to determine the strategies used by the management of Hendrosari Tourism Village in increasing the number of tourist visits. Hendrosari Village, located in Menganti District, Gresik Regency, East Java Province, has a Wista village called Eduwisata Lontar Sewu. Education, which has a tourism concept in the industrial era 4.0, is managed by Village-Owned Enterprises and Village Community Economic Business Groups under the coordination of the local Village Government. This tour relies on tourist attractions with instagramable photo spots. Besides, they also provide playgrounds for children and various local village culinary delights. This research is a descriptive study with qualitative data. The technique of collecting data was done by interviewing, observing, and documenting the informants using purposive sampling technique. Tourism product development strategies that can be carried out are in the form : 1) Developing instagramable photo spots by increasing the number of photos and visitors published on Instagram, Facebook, and YouTube. 2) Developing tourism vehicles by providing new tourism vehicles in the form of an All-Terrain Vehicle in existing tourist areas. 3) Arrange traders around tourist attractions to be tidier, cleaner, and more orderly. 4) Increase the enthusiasm of YouTubers to neutralize tourist attractions.

**Keyword: Tourism Village; Development Strategy; Increasing Tourist Visits**

## **BUSINESS SUSTAINABILITY OF VILLAGE PRODUCT IN GRESIK, INDONESIA**

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### **ABSTRACT**

Various village products as a form of development of the potential for local wisdom have been created, but the quality of the ability to support businesses and increase in (Micro, Small and Medium Enterprises/ MSME) income is not same by the quantity of products that are presented to complement the product "One Village One Product" program. Moreover, the conditions and situations in the environment in the era of the industrial revolution 4.0 with big data and production automation are challenges for business sustainability. Field studies show that Gresik Regency as an industrial city is strategically located and has an international port, and should experience an increase in the volume and value of exports every year. The current condition is just the opposite, where there has been a significant decline in exports in the last five years. This research focuses on local products of Village-Owned Enterprises. The purpose of this study was to explore information on how village products were able to survive in the competition and to describe the possibility of making local products competitive. This study used a qualitative approach and purposive sampling technique with data collection from the results of interviewing informants, namely the managers of Village-Owned Enterprises in Gresik Regency. The results showed that the sustainability of village product business in Gresik Regency is in a fluctuating position, because it is influenced by the weak ability of human resources to manage products.

**Keyword: Business Sustainability; Village Product; Indonesia**

## BIOTECHNOLOGY

### THE DIFFERENCES BETWEEN TYPES OF CARBOHYDRATE IN WOUND RECUPERATION PROCESS IN EXPERIMENTAL RABBIT: GLUCOSE AND LACTOSE

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#### ABSTRACT

All articles must contain an abstract. The abstract text should be formatted using 10 point Times or Times Carbohydrate is one of examples of nutrition that can influence the wound healing process. Three types of carbohydrate are monosaccharide, disaccharide and polysaccharide. They have differences in chemical structure. This study observed the wound healing between different types of carbohydrate. The type of research is experimental research by clinical tests. The research samples are 2 rabbits weight 350 grams - 400 grams. One rabbit as treatment with D-Glucose Monohydrate and one rabbit as treatment with D-Lactose Monohydrate. Each of the rabbits has 2 wounds on its back. The wound score uses observation sheets, the measure of the wound width was performed from 1 day to days and the time of wound healing. The data was analyzed by using the Independent Sample T Test by the significance of ( $\alpha$ ) = 0.05. From the research performed the final wound time in D-Glucose Monohydrate treatment group is 9 days and D-Lactose Monohydrate treatment group is 15 days, there is significant difference with different 6 days. The final wound wide (mean  $\pm$  SD) in D-Glucose Monohydrate treatment group is  $0.31 \pm 0.38$  and D-Lactose Monohydrate treatment group is  $0.66 \pm 0.42$ , but there is no significant difference with  $P = 0.1$ . The assessment result towards wound characteristic shows Value = 0.01 towards the wound dryness,  $P$  value = 0.03 towards the skin condition surround the wound on the day until days. There is a significant difference between D-Glucose Monohydrate and D-Lactose Monohydrate. There is the effect of D-Glucose Monohydrate and D-Lactose Monohydrate towards the wound recuperation and there is a significant difference between the utilization of D-Glucose Monohydrate with D-Lactose Monohydrate towards the time of wound recuperation, skin dryness and skin condition surround the wound.

**Keywords: Wound, Wound Recuperation, Glucose, Lactose**

## **PROTEIN IDENTIFICATION AND IN SILICO MODELLING OF ANTIOXIDATIVE PROTEIN FROM CHLORELLA SP.**

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### **ABSTRACT**

Antioxidants are compounds that prevent oxidation by scavenging free radicals to minimize their effects. Hence, the search for natural antioxidants is imperative. In this research, the protein of *Chlorella* sp. was isolated and tested by DPPH (2,2-diphenyl-1-picrylhydrazyl) assay for its antioxidant activity. The specific protein then was determined and modeled by Autodock Vina. This microalga demonstrated inhibition of DPPH radical scavenging of  $28.30 \pm 2.10\%$  at a concentration of 10 mg/mL. After digested by many enzymes, several proteins were identified from *Chlorella* sp. as follows: antifreeze protein, rhodopsin-like protein CvRh partial, and P700 apoprotein subunit 1b (chloroplast). Further, each identified classified protein was simulated in its bioactivity by molecular docking study. Several representative protein sequences exhibited binding interaction to ROS1 binding receptor, in both its hydrophilic and hydrophobic amino acids. These findings demonstrated the ability of *Chlorella* sp protein to be widely marketed as an alternative for antioxidative medicine.

**Keywords:** Antioxidative protein, *Chlorella* sp, Docking, DPPH assay, Microalgae

## **ALBUMIN CONTENT AND ANTIOXIDANT CAPACITY OF SNAKEHEAD FISH (CHANNA STRIATA) EXTRACTED USING DIFFERENT SOLVENT**

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### **ABSTRACT**

Albumin in snakehead fish (*Chana striate*) is known to contain sulfhydryl groups which are endogenous antioxidant precursors that have the potential to be developed as medicinal-food. This study aims to determine the effect of using different solvents (water and 0.1 M HCl) on albumin content and the antioxidant capacity produced by snakehead fish extract (SHE). The albumin content test was carried out using BCG (Brom Cresol Green), while the antioxidant capacity test used tetramers thoxyazo bismethy lenequinone (TMAMQ) enzymatic-based. The results showed that the use of water solvent was better than the use of 0.1 M HCl solvent, where the albumin content and antioxidant capacity produced were  $4.35 \pm 0.13$  mg / dl and  $7.04 \pm 0.49$   $\mu$ M, respectively.

**Keywords:** Albumin, Antioxidant, Snakehead fish, Solvent

## NURSHING

### EFFECT OF PARTICULATE MATTER (PM) EXPOSURE ON LUNG HISTOPATHOLOGICAL FEATURE AND IL-1B LEVEL AS INFLAMMATORY INDICATOR IN RATS (RATTUS NORVEGICUS)

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#### ABSTRACT

Vehicle exhaust gases (emissions) and bushfire contain very small particles pollutants which can be affected on health. Particulate matter (PM) is a very small pollutant, can be inhaled to lower respiratory tract. Chronic PM exposure triggers an inflammatory response to release of endogenous proinflammatory mediators which cause lung tissue damage. Aim of this study to determine the effect of PM (carbon black powder) exposure on lung histopathological feature and IL-1 $\beta$  level in rats (*Rattus norvegicus*). Method: A true experimental study with post-test only control group design. Thirty five male rats 2-3 months old were divided into 5 groups: Control, P1 (PM 532 mg/m<sup>3</sup> for 4 hours), P2 (PM 1064 mg/m<sup>3</sup> for 4 hours), P3 (PM 532 mg/m<sup>3</sup> for 8 hours), and P4 (PM 1064 mg/m<sup>3</sup> for 8 hours). Results: Lung histopathological feature showed significant effect on lung's damage by Mann-Whitney test ( $p < 0.05$ ). IL-1 $\beta$  levels were no significant effect among exposure rat groups by the Kruskal-Wallis test ( $p > 0.05$ ). Conclusion: Particulate matter exposure cause chronic lung damage, but not accompanied by increasing IL-1 $\beta$  levels due to a different inflammatory response.

**Keyword: particulate matter, IL-1 $\beta$ , lung histopathological damage**

## INFLUENCE OF ENVIRONMENTAL SETTING ON MATERNAL COMFORT AND SATISFACTION

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### ABSTRACT

Childbirth is a valuable experience for women. Psychological disorder such as anxiety is often felt by women during labor, it can be solved by physical environmental support in terms of environmental modifications that put women in comfort to reach labor satisfactory. By modifying a home-like labor environment, it boosts women comfort and make easier birth, it leads to maternal satisfaction. Labor environmental setting is conducted by involving stimulus of the senses including sight, hearing, taste, smell and touch. This study aimed to analyze the influence of labor environmental settings on maternal comfort and satisfaction. This study belongs to a quasi-experimental study with a non equivalent control group design. Samples in this study were all women giving birth in Bidan Praktik Mandiri West Bandung regency and Cimahi by involving 60 women. The draft of bivariable analysis by applying Mann Whitney Test and multivariable analysis by using two-proportion test with SPSS assistance. The results show that there is an influence of labor environmental settings on maternal comfort and satisfaction ( $p < 0.05$ ). It indicates that mother in control group have risk 4,25 feel uncomfortable than intervention group, and mother in control group have risk 3,33 feel unsatisfied than intervention group. At last, it concludes that there is an influence environmental settings of labor on maternal comfort and satisfaction.

**Keywords: birth environment, childbirth, comfort, satisfaction**

# **THE INFLUENCE OF POSYANDU CADRE TRAINING ON KNOWLEDGE AND ATTITUDES IN EFFORTS TO PREVENT STUNTING IN KARAWANG**

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## **ABSTRACT**

Stunting is a condition of failure to reach linear growth potential in children under five years of age as a result of chronic undernutrition so that children are too short for their age. The undernutrition results from the baby in utero and in the early days after the baby is born, but the incidence of stunting can be seen after the baby is 2 years old. Prevention efforts in reducing the incidence of stunting include involving cadres in the First 1,000 days of life program which is the front line in posyandu services after village midwives, so that a good cadre role is needed in preventing stunting more effectively. The research design used a quasi experimental with Pretest and Posttest design. The samples obtained amount to 46 cadres and appropriate to inclusion and exclusion criteria. The data was analyzed using the Wilcoxon Signed Rank Test. The results showed that the frequency of knowledge and attitudes after training increased by 89.1% and 60.9%. There is an effect of posyandu cadre training on knowledge in preventing stunting ( $p=0.000$ ) but there was no effect of posyandu cadre training on attitudes in preventing stunting ( $p=0.371$ ). In conclusion, the training that was carried out influenced the cadres knowledge more than the cadres attitudes.

**Keywords: attitudes, cadre, knowledge, stunting**

# **EARLY DETECTION OF ADOLESCENT HYPERTENSION WITH APPLICATION MODEL 4.0 BASED ON ANDROID SI "BER-SIH (CONSULTING, EARLY DETECTION, HEALTHY LIFE)**

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## **ABSTRACT**

The prevalence of hypertension is increasing. Risk factors for hypertension were 95.5% lack of vegetable and fruit, 35.5% proportion of lack of physical activity, 29.3% smoking proportion, 31% central obesity proportion and 21.8% proportion of general obesity. Bad lifestyle increases the occurrence of early hypertension. One of the preventive measures to prevent hypertension is by screening hypertension developed into the android smartphone app hypertension Si- Bersih. This research aims to develop early detection of hypertension and uses research and development design (RnD). Instruments used were questionnaires, the population in this study was early teens and late teens with details of 15 to 22 years old as many as 60 respondents using accidental sampling technique method. while data analysis using quantitative descriptive in the form of percentage of respondents involved in this study. The results of the analysis in this study with user quality categories there were 80% of respondents who rated very well, the effective categories of users obtained 75% of respondents rated very good, and from the overall evaluation results 85% of respondents rated this application very worth using. The conclusions in this study of android-based application of Hypertension Si Ber-Sih deserve to be used to detect early hypertension.

**Keywords – Hypertension, Adolesent Android Apps**

# **PSYCHOLOGICAL CONDITIONS OF MEDICAL PERSONNEL IN FACING THE PANDEMIC OF COVID 19: SYSTEMATIC REVIEW**

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## **ABSTRACT**

The Covid -19 outbreak brought global tension because the transmission process was so fast that it caused health workers to experience psychological problems. Long-term psychological disorders lead to weakened social relationships, mental health problems, local and economic dynamics. Purpose Review of studies on the psychological stress of healthcare workers caused by the COVID-19 pandemic. Methods A search of the PubMed literature was carried out using the keywords COVID-19 ”,“ mental health ”,“ stress ”,“ health workers ”,“ staff ”. Quantitative studies (including letters to editors) published from January 2019 to March 2020. Analysis of the quality of selected research articles by applying the new PRISMA and Critical Ability Assessment Program (CASP). The results of 5 studies found that psychological disorders occurred in the covid ward, internal medicine, and other departmental wards. There are various questionnaires used. The sample size ranged between 80 and 2,299 participants. There are extensive reports of mental disorders due to experiences of symptoms of depression, anxiety, insomnia to fear. The severity of mental symptoms is influenced by age, working hours, occupation and closeness to COVID-19 patients. Seeing the frequency of mental symptoms that occur in high health workers, it is necessary to provide psychological support and health education to facilitate coping for health workers.

**Keywords: Covid 19, Psychology, Mental health, Health workers, Reviews**

## **INTERNAL AND EXTERNAL FACTORS THAT INFLUENCE DEVELOPMENT OF CHILDRENS INDEPENDENCE**

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### **ABSTRACT**

The independence of children is the assets of childrens to become prime human resource, independence not to depend on others is one of the steps that must be trained from an early age. This study is a cross-sectional analytic study that was conducted to identify the external and internal factors that influence development of childrens independence. The study was performed on mother who had 3-5 years old child, simple random sampling selected through from 170 mother in Al-Wahyu Kindergarten School. 119 mothers were selected study's respondents. The data were collected through questionnaires. The results of the study was obtained using multiple logistic regression test and it showed that the factors that influence development of childrens independence in Al-Wahyu Kindergarten School, Surabaya, were gender of the child as internal factor (OR=2.91; 95% CI=1.27 to 6.64; p=0.011); parenting style as external factor (OR=1.35; 95% CI=1.10 to 1.65; p=0.004) and the number of children in the family (OR=0.48; 95% CI=0.24 to 0.94; p=0.034). From the results it can be concluded that internal and external factors have a related influence so that right parenting style that is in accordance with the gender and position of the child in the family will increase the Childs independence.

**Keywords: parenting style, independence of children**

## **COMMUNITY EMPOWERMENT THROUGH INDEPENDENT FAMILY HEALTH EVALUATION (IFHE)-BASED HEALTHY VILLAGES**

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### **ABSTRACT**

**Introduction:** Tutul Village is a village where the part of the inhabitants are classified as poor families. Moreover, there are still many health problems including the delays in recognizing and handling them. The partner is Tutul Village, Balung Subdistrict, and Jember Regency. The Partner's problems are: 1) the community's paradigm has not been optimal in the health sector especially the independence in recognizing the changes of health status, 2) the absence of entrepreneurship in the health sector that supports the family economy. The solution to strengthening the Healthy Village program based on Independent Family Health Evaluation (IFHE). **Method:** The activity takes for about 8 months. The approach method has several stages, namely: forming a task force team, mapping the family health area, strengthening the competence of the task force team, preparing the IFHE health identification format, testing the IFHE format and assisting families in identifying family health status independently. The results that were obtained were the increasing of knowledge and skills toward the health themes on the task force team, the family was able to identify family health status using the IFHE format and the increasing of the knowledge, skills, and family health behaviour. The conclusion is the improving public health behavior with the support of the Task Force Team and the entire community can make the IFHE-based Healthy Villa.

**Keyword: Community; Empowerment; Through Independent.**

# **THE EFFECT OF CHEMICAL EXPOSURE OF FOOD CONSUMPTION, COSMETICS USE, AND MENSTRUAL CYCLE, ON FEMALE FERTILITY**

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## **ABSTRACT**

Food intake and use of cosmetics that are exposed to chemical substances have the risk of causing negative effects 1) potentially toxic to the reproductive system, 2) suffering from hypothyroidism, 3) impairing hormone production, 4) inhibiting egg growth, 5) damaging skin pigment with negative effects cosmetic, 6) depression due to infertility, 7) endometritis. The purpose of this study was to determine exposure to chemical substances, food intake, cosmetic use and menstrual cycle on female fertility. Research method: Cross sectional study and intervention study, Population: fertile-aged housewives from October 2019 to October 2020 totaling 480 respondents, with simple random sampling of 218 respondents. This research used cross sectional, observational analytic approach, closed direct interview instrument (quantitative), opens interview (qualitative) and observation (checklist). The intervention study used a case control group (infertility) and a control group. The population of the infertility case group was 69 respondents. The direct interview and observation instruments used a checklist. The results of exposure to chemical substances for food intake were Pvalue  $0.492 > 0.005$ , meaning insignificant, exposure to chemical substances using cosmetic use Pvalue  $0.008 < 0.005$  means significant, menstrual cycle Pvalue  $0.492 > 0.005$  means significant. Before and after the intervention diet, meals and vitamin E 200 mg per day with a p value of  $0.000 < 0.05$ , it means that there is a difference. Conclusion: there is an effect of chemical exposure on cosmetic use and menstrual cycle on female fertility, exposure to dietary chemicals has no effect on female fertility and there are differences before and after being given dietary intervention and giving vitamin E 200 per day.

**Keyword: Effect, Chemical Exposure, Food Consumption**

## **RISK FACTORS AND INTERVENTION OF HYPERIMYSIS GRAVIDARUM**

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### **ABSTRACT**

Nausea and vomiting experienced by pregnant women in 50-91% of all pregnancies, excessive nausea and vomiting becomes hyperimysis gravidarum. The cause is not known with certainty, possibly because of the multifactorial risk factor; the impact of dehydration, malnutrition, anemia, maternal and fetal mortality. The purpose of this study was to determine risk factors and to identify differences in interventions for hyperimysis gravidarum. This study uses two methods, namely case control and intervention. Targeted 308 pregnant women respondents were obtained from the Practice Midwives for the period 2018 to 2020. The case control study was divided into 2, namely the case group of 154 respondents (hyperimysis gravidarum) and the control group of 154 respondents (not hyperimysis gravidarum). Instruments: Medical records, closed direct interviews (quantitative analysis) and direct and open interviews (qualitative analysis), using Chi-Square Test. Furthermore, the case group in the intervention was divided into two groups, each of which identified differences before and after the intervention using purposive sampling technique. The forms of intervention are non-pharmacology and pharmacology. Instruments: Medical records, closed interviews and observation with a checklist. Results: Risk factor for parity p value  $0.732 > 0.05$  insignificant, not at risk, gestational age pvalue  $0.010 < 0.05$  significant, at risk, activity pvalue  $0.017 < 0.05$  significant, at risk, Stress pvalue  $0.210 > 0.05$  not significant, not at risk, allergy pvalue  $0.002 < 0.05$  significant, at risk. There were significant differences in non-pharmacological and pharmacological interventions with p value  $0.038 < 0.05$ . Conclusion: thus the risk factors for hyperimysis gravidarum: gestational age, activity and allergy. The non-risk factors are parity and stress. There are differences before and after intervention in non pharmacology, as well as differences before and after intervention in pharmacology, and there are differences in interventions in non pharmacology and pharmacology.

**Keywords: intervention, Farmakologi, non farmakologi, hyperimysis gravidarum**

# **NURSING INTERVENTION TO IMPROVE HOPE IN CHRONIC RENAL FAILURE PATIENTS UNDERGOING HEMODIALYSIS: A SYSTEMATIC REVIEW OF RANDOMIZED CONTROLLED TRIAL**

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## **ABSTRACT**

Low hope is a common psychological problem and is a major predictor of hemodialysis patients' clinical outcome. This problem is possibly overcome by nursing interventions to improve hope. This review aims to identify nursing interventions to improve hope in chronic renal failure patients undergoing hemodialysis. Methods: a literature search was conducted employing Pubmed and Google Scholar with the keywords: nursing intervention, hope, chronic renal failure, and hemodialysis. This study reviewed five articles: two from Pubmed and three from Google Scholar based on the systematic criteria. Analysis of selected research articles' quality was conducted by applying the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) and the Critical Appraisal Skills Programme (CASP). Results: Findings suggest that certain interventions can be undertaken to improve patients' hope in undergoing hemodialysis through peer support, spiritual intelligence training, illness perception-based intervention, selfcare education with and without telephone follow-up and spiritual therapy. Conclusions: Providing comprehensive physical and psychological intervention through hospital services and home care can improve hope. Recommendations: Nurses can implement interventions in providing holistic nursing care to enhance hemodialysis patients' hopes.

**Keywords: Nursing Intervention; Improve Hope; Chronic Renal Failure**

## **MINE WORKERS' PSYCHOLOGY**

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### **ABSTRACT**

The roster work system, which has day and night working hours for mine workers, can cause occupational stress. This study aims to examine the quality of working life and occupational stress. This is an observational research with cross sectional design. The samples were 107 workers based on probability by using simple random technique. The data instrument was a Likert scale, while the data analysis was used Pearson and linear regression. The average working life quality score was 61,71 covering aspects of job restructuring, reward system, labor force participation and occupational environment. The average occupational stress score was 55,48 which included biological stress, psychological stress and social stress. The test results show the effect ( $p = 0.012$ ) with a correlation of -0,245 that the quality of work life is good, so occupational stress will decrease. It is expected that the work system of preventive assessment of worker health will be improved so that work productivity can be high.

**Keywords: Psychology, Working Quality, Occupational Stress**

## **DETERMINANT FACTORS AFFECTING ELIGIBLE WOMEN WITH THE SELECTION OF CONTRACEPTIVE INTRAUTERINE DEVICES (IUDS)**

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### **ABSTRACT**

Contraceptive method The IUD is a practical and effective long-term contraceptive method for use by women of childbearing age. The low interest in women of childbearing age in choosing the IUD method as a contraceptive is caused by many factors. The purpose of this study was to analyze the determinants that influence women of childbearing age in choosing an intrauterine contraceptive method. With a total population of 860 people with a sample of 273 people, the sampling technique uses probability sampling with proportional random sampling technique. Data analysis used multiple logistic regression statistical tests while the significance test uses an error degree of 0.05. The results of this study are the factors of attitudes of women of childbearing age and husband's support with a value of  $p = 0.004$  for the attitudes of women of childbearing age and  $p = 0.000$  for husband's support. Attitude has an effect of 57.93 times while husband's support is 126.69 times in choosing the IUD as a contraceptive method by women of childbearing age. Health workers are encouraged to increase socialization and approach to couples of childbearing age in order to choose to use the IUD contraceptive method.

**Keyword: Determinant Factors; Affecting Eligible; Intrauterine**

## **CHILDREN DIETARY DIVERSITY AND ITS FACTORS: A DESCRIPTIVE STUDY BY USING EVIDENCE FROM THE INDONESIAN DEMOGRAPHIC HEALTH SURVEY (IDHS) 2017**

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### **ABSTRACT**

Proper feeding practice is essential to ensure optimal children's growth and development. However, scientific evidence regarding to dietary diversity and its factors among young children are scanty. This study aimed to describe factors which related to dietary diversity among 6-23 months old children in Indonesia. Method: this study was Descriptive and obtained 1227 infants and young children 6–23 months old. The variable were sex of child, age of child, number of children 5 and under in household, age of women, women's empowerment indicator, type of place residence, wealth index, and highest education level of husband/spouse. The Instrument was Indonesia Demographic and Health Survey (IDHS) 2017. The data were analyzed using frequency distribution and percentage. Results: The percentage of female and male who fulfill the Minimum Dietary Diversity (MDD) was equal by 76 % and 74 % respectively. Meanwhile, household with children 18-23 months had the highest percentage in fulfill MDD (87.3%). In addition, MDD achievement was better in families with the number of children less than equal to 1. Women aged 20-44 have a better percentage of achieving MDD (above 70%) than women in the younger or older age range. Furthermore, good MDD achievement can be seen in women empowerment indicators in the high category (73.8%), families living in cities (81.2%), households with the wealth index criteria for the richest (86.4%), and secondary or higher education levels (77.8 %). Discussion: the factors that support the achievement of MDD in children need to be pursued through the right programs from the government.

**Key words: Minimum Dietary Diversity (MDD), children age 6-23 months, Indonesia Demographic and Health Survey (IDHS)**

## **INTERNAL AND EXTERNAL FACTORS THAT INFLUENCE DEVELOPMENT OF CHILDRENS INDEPENDENCE**

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### **ABSTRACT**

The independence of children is the assets of childrens to become prime human resource, independence not to depend on others is one of the steps that must be trained from an early age. This study is a cross-sectional analytic study that was conducted to identify the external and internal factors that influence development of childrens independence. The study was performed on mother who had 3-5 years old child, simple random sampling selected through from 170 mother in Al-Wahyu Kindergarten School. 119 mothers were selected study's respondents. The data were collected through questionnaires. The results of the study was obtained using multiple logistic regression test and it showed that the factors that influence development of childrens independence in Al-Wahyu Kindergarten School, Surabaya, were gender of the child as internal factor (OR=2.91; 95% CI=1.27 to 6.64; p=0.011); parenting style as external factor (OR=1.35; 95% CI=1.10 to 1.65; p=0.004) and the number of children in the family (OR=0.48; 95% CI=0.24 to 0.94; p=0.034). From the results it can be concluded that internal and external factors have a related influence so that right parenting style that is in accordance with the gender and position of the child in the family will increase the Childs independence.

**Keywords: parenting style, independence of children**

## **EFFORTS TO PREVENT ANEMIA OF IRON NUTRITION IN PREGNANT WOMEN**

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### **ABSTRACT**

Anemia in pregnant women may bring about low birth weight and premature giving birth, a very low Hb, or very high disrupting metabolism. Anemia of pregnancy is generally iron deficiency. Physiologically during pregnancy, plasma increases, and Hb decreases. Research objective: prevention of anemia in pregnant women Method: Quasi-experimental (One Group Design Before and After Design, One Group Pre, and Post Test Design). Population: all pregnant women with anemia at the first visit. The number of samples: 104 respondents, quota sampling. Inclusion criteria: check at the Praktek Bidan Mandiri, Gresik sub-district, Hb < 11 gr%, comorbidities (-). Independent variable: knowledge of balanced nutrition, knowledge of anemia, maternal attitudes, and taking iron tablets. Dependent variable: Anemia. Data collection: MCH books, questionnaires, and measurement of Hb sahli. Statistical analysis: using t-test and multiple linear regression. Results: The mean value of nutrition knowledge post-intervention > 37.31, knowledge of anemia > 40.05, maternal attitude > 35.83 of the pre-intervention. The average hemoglobin increased (1.79) gr%. The regression coefficient equation  $Y = 18,627 - 0.088X$ , Fe tablet has a regression coefficient of 0.088 with a correlation of -0.312 and a significance of 0.004. Conclusion: There is an effect between Fe tablets with the incidence of anemia. Suggestion for further study: balanced nutritional intake for pregnant women.

**Keywords: Intervention of nutrition, iron tablet, Hemoglobin, anemia.**

## **ANALYSIS OF FACTORS AFFECTING PREGNANT WOMEN TO PERFORM PERINEAL MASSAGE**

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### **ABSTRACT**

One of the fears that is often felt by third trimester pregnant women is perineal rupture during childbirth. Perineal rupture can be prevented by taking preventive measures during pregnancy, namely perineal massage which can be done by pregnant women from 34 weeks of gestation until nearing labour. In East Java, the maternal mortality rate in 2018 was 515 per year or 1 to 2 people per day. The cause of the high maternal mortality rate of 20.3% is due to postpartum haemorrhage. The purpose of this study was to analysis the factors that influence pregnant women to perform perineal massage. The total population was 120 pregnant women with a sample of 92 pregnant women in April-July 2019, the sampling technique used simple random sampling. The data analysis used multiple logistic regression statistical tests while the significance test used a 0.05 degree of error. The results of this study were the age factor with a low risk of affecting pregnant women, the p-value was 0.003 (<0.05). Knowledge and motivation factors have an effect together. Knowledge has an effect of 122.5 times while motivation has an effect of 13.14 times in doing perineal massage during the third trimester of pregnancy. Health workers are encouraged to increase socialization and approach to third trimester pregnant women so that they want to do perineal massage independently

**Keyword: AnalysisFactors; Affecting Pregnant; Women To Perform**

## **AN OVERVIEW OF SOCIAL STIGMA AND QUALITY OF LIFE IN PEOPLE WITH PULMONARY TUBERCULOSIS IN EAST JAVA, INDONESIA**

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### **ABSTRACT**

The experience society makes rejection from society makes people with pulmonary tuberculosis depressed and worsens their quality of life, to reduce the social stigma that exists in society namely improving the pattern of quality of life as well as good self-perception in sufferers. The purpose of this study is an overview of social stigma and quality of life in people with pulmonary tuberculosis in East Java, Indonesia. Design analytics with a cross-sectional approach. The study population consisted of 2 groups of 65 tuberculosis sufferers and 65 were families. A large sample of 2 groups consisted of tuberculosis patients of 55 respondents and 55 respondents were family. Sampling technique using simple random sampling, data collection instrument using a questionnaire sheet. The data were analyzed using the Chi-Square test with an  $\alpha = 0.05$ . The results showed that the majority (60%) families have bad social stigma and most (58.2%) tuberculosis sufferers have poor Quality of Life. Chi-Square test results value  $\rho = 0.007$  and  $\alpha = 0.05$ , which means there is a relationship between stigma social with Quality of Life tuberculosis sufferers in Indonesia. The worse the social stigma that exists in the family, the worse the Quality of life in tuberculosis sufferers. It is expected that the family will provide full support to tuberculosis sufferers about the Quality of life so that the physical health of the sufferer is improved.

**Keywords: Review, social stigma, quality of life, pulmonary, tuberculosis**

## **SEASONAL INCIDENCE OF GUILLAIN-BARRE SYNDROME IN RUMAH SAKIT ISLAM JEMURSARI SURABAYA**

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### **ABSTRACT**

GBS is the leading cause of acute flaccid paralysis. Former study showed the highest GBS incidence, particularly in April-May, during seasonal transition from rainy to summer period. Indonesia has only limited study about demographic profile of GBS incidence. RSI JS Surabaya is the only type B hospital in Wonocolo, a district of Surabaya. Mapping the incidence of GBS regionally and temporally could assist the strategic planning of diagnosis and treatment for the disease. This descriptive study was conducted in cross sectional design, using medical record of all patient with GBS in ER and ward of RSI JS Surabaya from Januari 2017-November 2019. The inclusion criteria was all the patient with GBS (diagnosed by Neurologist or Medical Doctor), and the exclusion criteria were a history of GBS, hyperglycemia, and hypokalemia. The total of medical record was 25, male 60% (15) and female 40% (10). Range of patient's age was 10-55 years, the highest incidence were 10-20 years (24%, 6 patients) and 40-50 years (24%). The peak of incidence for 3 years was consistent in January (7 cases, 28%) and March (28%). Weakness was the main complain of most patient (80%).

**Keyword: Seasonal Incidence; Guillain-Barre; Syndrome**

# **THE INFLUENCE OF RING CARDS ON THE KNOWLEDGE AND ATTITUDE OF MOTHER WITH TODDLER 0-24 MONTH IN THE PREVENTION OF STUNTING**

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## **ABSTRACT**

Indonesia is still facing nutritional problems that have a serious impact on the quality of human resources, one of the problems of malnutrition that is still quite high in Indonesia is especially the problem of stunting. The incidence of stunting is one of the nutritional problems experienced by toddlers under five in the world today. In 2017 22.2% or around 150.8 million toddlers under five in the world were stunting. Stunting can occur as a result of malnutrition, especially at 1000 HPK. Stunting will affect the level of intelligence of toddlers and health status as adults. In overcoming nutritional problems, there are two solutions that can be done, namely with specific and sensitive interventions. One of the sensitive interventions is increasing knowledge. The purpose of this research was to analyze the effect of the ring card on the knowledge and attitudes of the mothers who have toddler 0-24 month in preventing stunting. This research uses quasi experimental method of pre post test design with 30 of the mothers who have toddler 0-24 month in Self-Employment Midwife. Test statistical analysis using wilcoxon Test and T Test. The results obtained were was difference in the increase in the pre test 10.50 to 15.00 and while the attitude variable shows that there is an increase in the mean value from 22.31 to 25.71 ( $P < 0.05$ ). Conclusion of this research is that ring cards are proven to be influential in being used as a promotional effort for the mother who have toddler 0-24 month in preventing stunting.

**Keyword: Baduta; Ring Card; Stunting**

## **THE EFFECT OF MOXA THERAPY TOWARD CHANGES IN BREECH POSITION ON 3RD TRIMESTER PREGNANT WOMAN**

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### **ABSTRACT**

Abstract. Breech pregnancy puts both mother and fetus at higher risk of morbidity and mortality. The risk of breech delivery makes caesarean sections the safest way to help with childbirth. Who sets the indicator of caesarean delivery 5–15% for each country, where in Indonesia 10% of Caesarean sections are caused by fetal abnormalities. Several types of maneuvers are promoted in changing the breech location, one of which is Moxa therapy. This therapy is done by burning mugwort (*artemisia vulgaris*) concoctions that are compacted in the form of cylinders placed on the outside of the little fingers of the feet until it produces hyperemi from local vasodilation. The mechanism of its work has a thermal effect and IR radiation that can increase fetal activity so that the fetus is able to rotate from the presentation of the buttocks to the presentation of the head. The purpose of this study was to determine the effect of moxa therapy on the improvement of breech location in Trimester III pregnant women. The research method used pure experiments with post test control design in 22 mothers with gestational age of 32-37 weeks. Data analysis using kruskall-wallis test. The results of the study found that there is an influence of moxa therapy on breech location changes with a value of  $p = 0.001$  ( $p < 0.05$ ). In the intervention group, all pregnant women experienced breech location changes (100%), while in the control group, there was 1 person who experienced improvements in breech location (9.1%). Moxa therapy affects the improvement of the breech position into the head.

**Keyword: The Effect, Moxa Therapy; Toward Changes; In Breech Position**

**IMPROVE THE QUALITY OF SLEEP FOR THIRD TRIMESTER PREGANANT  
WOMEN WITH A COMBINATION OF EFFLAURAGE MESSAGE AND  
LAVENDER AROMATERAPY**

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**ABSTRACT**

Posture changes during pregnancy are an adaptation of the body to the occurrence of the pregnancy process. Posture changes to compensate for the enlarged uterus, especially if abdominal muscle tone is weak. The shifting of the mother's umbilical gravity to the back of the leg results in the body experiencing progressive lordosis and it is not uncommon for increased mobility of the scroiliac and sacroxygeal joints which can cause low back pain, especially in the third trimester. In addition to back pain, most pregnant women also experience a decrease in sleep quality, one of which causes changes in body posture. This study aims to identify the effectiveness of a combination of effleurage relaxation therapy and lavender aromatherapy on the sleep quality of third trimester pregnant women. The research method used was experimental research, using a randomized controlled trial with a pre and post test control group design with 30 respondents in the intervention group and 30 pregnant women in the control group 3 times a week with a duration of 15 minutes and The Pittsburgh Sleep Quality Index (PSQI) questionnaire. The results showed that there was an increase in the quality of sleep for pregnant women in the third trimester after being given the intervention, which can be seen from the results of the pre and post questionnaires showing a reduction in the PSQI score. It is expected that the quality of sleep for third trimester pregnant women will be good with the use of this complementary therapy.

**Keyword: Improve; Quality Of Sleep; Trimester Preganant**

## **PSYCHOMETRIC TESTING AND CROSS-CULTURAL ADAPTATION OF THE INDONESIAN VERSION OF THE SHORT FORM SURVIVOR UNMET NEEDS SURVEY (SF-SUNS)**

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### **ABSTRACT**

Most patients with cancer have experiences in suffering many symptoms. This condition is allowed the possibility of unmet needs arising in cancer survivors. The SF-SUNS is acknowledged as well-psychometrically instrument for exploring unmet needs among cancer survivors. However, there is no foregoing study developed of the SF-SUNS in Indonesian language. Purpose: To translate, culturally adapted and assess validity reliability of SF-SUNS among Indonesian cancer survivors. Methods: the procedure of forward-backward translation and culture adaptation were conducted. Then psychometric testing including content validity, exploratory and confirmatory factor analysis (EFA & CFA), and internal consistency were measured. Results: Four Factors were extracted and 24 items were kept by conducting EFA with factor loading 0.52-0.98, the Kaiser-Meyer-Olkin was 0.863 and 54.27% total variances explained in the SF-SUNS questionnaire. The domains of The SF-SUNS is namely informational, financial, access and continuity care and coping and emotional unmet needs. The Cronbachs's alpha coefficient for the SF-SUNS was 0.894. Conclusion: the SF-SUNS questionnaire is demonstrated an acceptable level of reliability, validity and equivalency for assessing unmet needs in cancer patients. The SF-SUNS assist health professionals to develop needs-based care in clinical setting.

**Keywords: unmet needs, SF-SUNS, cancer, psychometric testing, validity.**

# **THE IMPACT OF THE COVID-19 PANDEMIC ON A SINGLE PARENT WHOSE AN ADOLESCENT CHILD SUFFERS FROM AUTISM SPECTRUM DISORDERS: A CASE STUDY**

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## **ABSTRACT**

It is not easy for single parents to survive who have a teen with autism spectrum disorder during this COVID-19 pandemic. This Covid-19 pandemic circumstance brings big changes and impacts to the families both physically and psychologically. The purpose of this case study was to provide an overview and explore how the COVID-19 pandemic situation impacts the lives of a single parent who has an adolescent with autism spectrum disorder. The data collection method was done by means of in-depth interviews and observations which were conducted in a single-parent family who has a teenager with autism spectrum disorder. The results of this study indicate that during the Covid-19 pandemic, the single parent experienced job loss and the emerge of various diseases, such as hypertension and gastritis. Psychologically she also experiences irritability, reduced attention to her child, and making her child as an object for anger. It is important for the single parent to manage and express emotions positively so that she can provide a sense of security and comfort to her child during this Covid-19 pandemic.

**Keyword: Covid-19 Pandemic; Autism spectrum disorder; single parent, impacts**

# **FACTORS AFFECTING THE ESTABLISHMENT OF PSYCHOLOGICAL, PSYCHOSOCIAL PROBLEMS AND SLEEP DISORDERS IN STUDENTS WHO EXPERIENCE A PHONE ADDICTION**

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## **ABSTRACT**

Double-edged sword. Excessive use of smartphones causes physical and psychological problems. The purpose of this study was to identify psychological and psychosocial health problems that may arise in adolescents who have problems using smartphones. The population of this research is students who are 17 years old and have a smartphone for more than 2 years and are willing to participate in this study. Data collection was carried out online with a total of 101 respondents. Data collection uses the Scale Shorth Version (SAS SV) questionnaire, Self-Consciousness Scale, Shyness scale, Perceived Stress Scale, Pittsburgh Sleep Quality Index (PSQI). The analysis was carried out univariably and used the pathway analysis. The incidence of Shyness by phone among students is influenced by the factor of the category of residence (0.19), the duration of using the cellphone (0.65). The incidence of social anxiety in students through phone addiction is influenced by the factor of duration of cellphone use (0.13). The incidence of stress in students through phone addiction is influenced by the duration of cellphone use (0.13). Sleep disturbance among students through phone addiction is influenced by salary factor (0.02). Students who experience phone addiction are overshadowed by health problems in psychological aspects such as shyness, social anxiety, stress and frequent sleep disorders and decreased sleep quality.

**Keyword : Phone addiction, Shyness, Social Anxiety, Stress, Sleep Disorders**

## **FALL RISK ASSESSMENT INSTRUMENT FOR CHILDREN IN HOSPITAL: LITERATURE REVIEW**

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### **ABSTRACT**

Incidence of falling patients is a serious problem in the hospital because it is an indicator of patient safety, especially children and an indicator of hospital quality. Assessment of the risk of falling for a child in the hospital is often overlooked and considered unimportant by nurses. Several instruments to assess the risk of falling in children have been developed, but there are instruments that are not generally known. This study aims to obtain data on the development of an effective fall risk assessment instrument for children in hospital. The method of searching for articles through Googlesearch and PubMed with the keywords fall risk assessment, tool, children, hospital. Tracing the literature from 2010-2018 with a retrospective, case control and observational study design. The results of the study found five instruments for assessing the risk of falling in children, namely GRAF-PIF, CHAMPS, PFRA, Humpty Dumpty Scale, and Cummings Pediatric Fall Assessment Tool. The five instruments have low sensitivity and specificity values ranging from 24% -76%. Given the low sensitivity and specificity values, it is necessary to evaluate using subjective assessments from nurses. The hope is that the risk instrument for falling on children can be applied in accordance with the child's condition.

**Keyword: Fall Risk, Assessment, Children, Hospital**

# **MODEL HEALTH COACHING SUPPORT PEER COACHING METHOD IN IMPROVING CHILDREN'S HEALTH MAINTENANCE BEHAVIOR**

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## **ABSTRACT**

Children are the assets of the nation and the future generations of the ideals of the nation's struggle that will determine the future of the nation and state. Therefore, great attention and hope needs to be given to children. This research was conducted with the aim of improving children's health maintenance behavior by providing peer coaching health coaching support to students of primary school SATAP WOLOMAPA. This research was conducted with this research method using a quantitative method, with a Quasy Eksperiment design with a one grup pre test posttest design. This study design only conducted intervention in one group without comparison. The effectiveness of the treatment was assessed by comparing the pre test and posttest scores. Subjects in this study were 60 parents and student of grade four and five primary school SATAP WOLOMAPA consisting of 30 student and 30 parents (mothers) of students. The results of this study prove that the peer coaching method of health coaching support intervention can improve health maintenance behavior in children.

**Keyword: Health coaching, Children, Maintenance Behavior**

## **ANTIOXIDANT EFFECT OF XANTHONE TO PROTECTIVE ON 2-METHOXYETHANOL-DECREASED LEYDIG CELL NUMBER**

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### **ABSTRACT**

Oxidative stress has a very important role in the mechanism of action of 2-ME in causing the testicular damage. The xanthenes have a very strong antioxidant effect, therefore is needed research to evaluate the mechanism underlying the protective effect of antioxidant xanthone on 2-Methoxyethanol-decreased Leydig cell number in mice. The research used 35 male mice divided into 5 groups: control group (mice were given daily with water purified by distillation); 2-ME group (mice were given daily with 2-ME 200 mg/kg BW orally once in a day for 35 days); and the treatment group ( mice were given the xanthone 60 mg, 120 mg, and 240 mg/kg BW orally once in a day for 38 days, and on the 3th day, were given 2-ME 200 mg/kg BW one hour after the xanthone administration). After 38 days, the testis tissues were collected to evaluate the immunohistochemical of the expression of malondialdehyde (MDA) in Leydig cell. Testis tissue was also taken to histological evaluations of Leydig cell number. The immunohistochemical evaluation showed that 2-ME administration significantly increased the expression of MDA in Leydig cell. The histopathological evaluations showed that 2-ME also significantly decreased Leydig cell number. However, administration of xanthone significantly decreased the expression of MDA on leydig cell. Xanthone significantly increased Leydig cell number in histopathological evaluation. In conclusion, our results indicate that xanthone as antioxidant agent is able to increase Leydig cell number in mice treated with 2-ME through decreased MDA expression.

**Keyword: Antioxidant, Xanthone, Leydig cell, 2-Methoxyethanol**

# **THE EFFECTIVENESS OF GIVING TEPID MASSAGE TO CHANGES IN BODY TEMPERATURE IN CHILDREN WITH BRONCHOPNEUMONIA**

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## **ABSTRACT**

Bronchopneumonia is an inflammatory disease of the airways that occurs in the bronchus to the lung alveoli, which many encountered in children and infants. The autoimmune reaction that occurs is fever, so nonpharmacological action is needed that is compress tepid massage. The purpose of this study was to analyze the effectiveness of giving tepid massage to changes in body temperature in children with bronchopneumonia. Used method in the study is a quasi experimental design with pre-test and post-test design with two comparison treatment, population of 20 children. The sampling method was purposive sampling. Instrument for data retrieval by observing body temperature. Date analysis using Wilcoxon test. The results showed that the calculated  $Z$  value  $> Z$  table ( $2.816 > 1.96$ ) and the significance value or significance  $p$  ( $0.005 < \alpha$  ( $0.05$ )) and the mean posttest  $<$ mean prettest ( $37.190 < 38.470$ ), then  $H_0$  is rejected and  $H_a$  was accepted, meaning that there was an effect of giving warm massage on changes in body temperature in children with bronchopneumonia. Expected in can use tepid massage therapy as a non-pharmacological therapy in reducing fever in children.

**Keyword: Tepad massage, Bronchopneumonia, Fever, Children**

**THE EFFECTIVENESS OF EDUCATIONAL VIDEOS AS LEARNING MEDIA FOR STUDENTS' SKILLS IN THERAPEUTIC COMMUNICATION FOR MENTAL DISORDERS PATIENTS IN THE UNDERGRADUATE NURSING PROGRAMME OF NUSA NIPA UNIVERSITY**

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**ABSTRACT**

Students' skills in conducting therapeutic communication with mental disorders patients in the era of the industrial revolution 4.0 using the role play method when laboratory practicums are felt by students have not helped to be able to understand and practice again. Therefore we need social media-based learning media such as the use of educational videos. The aim of this study was to determine the effect of educational videos as a medium of learning on students' skills in therapeutic communication in mental disorders patients in undergraduate nursing program students. The research using quantitative methods with a quasi experimental design with a one group pre-test posttest design. The effectiveness of the treatment was assessed by comparing the pre-test and post-test scores. The sample in this study were all students in semester VI of the Undergraduate Nursing Program totaling 30 people used was total sampling. Collecting data used the observation sheet of the ability to perform therapeutic communication on the strategy for implementing the risk of violent behavior, compiled by Keliat et al. (2015). Data collection begins with the pre-test, intervention and post-test stages. Data analysis used the McNemar test with  $\alpha = 0.05$ . The results showed that the obtained p value was  $0.000 < \alpha (0.05)$ . This means that  $H_a$  is accepted, which means that there is an effect of providing educational videos on student skills in doing therapeutic communication. Thus there is an increase in the ability of students to carry out therapeutic communication after being given educational videos.

**Keyword: Therapeutic communication, instructional media, mental disorders patients, educational videos**

**BABY "PUKUNG" SLEEPING POSITION AS A BANJAR AND DAYAK ETHNICS TRADITION FOR DEALING WITH SLEEPING PROBLEMS IN 2 - 12 MONTHS OLD BABIES IN KUTAI KARTANEGARA, EAST BORNEO**

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**ABSTRACT**

The prevalence of baby sleeping disturbance was about 30% - 35%. In Beijing and China, the prevalence of sleeping disturbance amongst children ages 2 - 6 years old is 23.55%. In Indonesia, the prevalence of sleeping disturbance in children under the age of 3 years old is 44.2%. This study aims to determine the benefit of the unique tradition of "pukung" sleep position to meet the sleeping needs of 2 - 12 months old babies. The result obtained from this study is useful in keeping the tradition in the community who still kept the culture of "ayunbapukung" to improve the health quality of children through improving babies' sleeping quality and quantity. The research design used in this study was observational conducted in 2 - 12 months old babies. The subjects of this study are mothers with 2 - 12 months old babies. This study method was through a structured interview using a valid questionnaire (BISQ). The result from the study showed that there was an increase in the fulfillment of sleeping needs in babies by about 40% in babies who used the "pukung" sleeping position. This study concludes that the unique tradition of "pukung" can be used to improve the quality of sleep in 2 - 12 months old babies in Samarinda.

**Keyword : "Pukung" Sleeping Position, Quality Of Sleep**

# **NUTRITIONAL STATUS, TOTAL INTAKE AND DETERMINANTS FACTORS OF NUTRITIONAL INTAKE OF NEW HOSPITALIZED PATIENTS AT MUHAMMADIYAH LAMONGAN HOSPITAL**

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## **ABSTRACT**

Malnutrition is a determining factor for the length of treatment and healing process of inpatients at the hospital. This study aims to examine nutritional status, total patient intake, and factors related to the intake of inpatients. The study was conducted from November to December 2019 at the Muhammadiyah Hospital in Lamongan. A total of 124 patients were selected as samples using a purposive sampling technique. The sample consisted of three age groups, 42% of the patients were classified as elderly (aged > 60 years), 34% pre-elderly (50-60 years), and 24% of adults. Based on the type of disease, 71.8% of patients diagnosed with non-communicable diseases such as diabetes mellitus, cancer, and cirrhosis, and 28.2% were treated for infectious diseases. The result showed that 19.4% of the patients were malnourished; 10.5% were overweight; 6.5% were obese and 63% had normal status. All overweight and obese (100%) patients suffered from non-communicable diseases, while malnourished patients suffered infectious diseases (50%) and non-communicable diseases (50%). Based on the chi-square test, there was a significant relationship between the type of disease suffered by the patient and the patient's nutritional status ( $p = 0.003$ ). Based on the results of the 24-hour recall showed 90% of patients did not meet daily energy needs (<80% of requirements). The patient's average meal consumption was only 44 + 23% of daily needs. Correlation analysis of intake and complaints of pain that felt by patients showed that the fulfillment of energy intake had a significant relationship with chewing difficulty ( $p = 0.0001$ )

**Keyword: Hospitalized, intake, Malnutrition**

## **EXERCISE THERAPY TO PREVENT MICROVASCULAR COMPLICATIONS IN TYPE 2 DIABETES MELLITUS**

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### **ABSTRACT**

**Background:** Microvascular complications are commonly found in the patients with type 2 diabetes mellitus. The symptoms of microvascular complications are tingling and numbness in the lower extremities that can be detected by measuring the Ankle Brachial Index (ABI). **Objective:** To obtain the effectiveness of the combination of buerger allen exercise and diabetic foot exercises on the ABI in patients with type 2 diabetes mellitus. **Methods:** This study used a Quasy-Experiment pre-test and post-test with a control group design from February to March 2020. The samples were 22 respondents (intervention = 11, control = 11) taken with a purposive sampling technique. The intervention group received a combination of buerger Allen exercise and diabetes foot exercises for a month (2 times/week), the control group did not receive the treatment. The data were tested with independent t test and paired t test,  $\alpha < 0.05$ . **Results:** There was no difference of constipation after 5 days turning between two groups ( $p = >.999$ ). **Conclusions:** The results showed that there were significantly different of ABI score between pre and post-test in the intervention group ( $p=0.000$ ) and there were no significantly different of ABI score between pre and post-test in the control group ( $p=0,127$ ). There was significantly different in post-test ABI score between the intervention and the control group ( $p=0,000$ ). This study concludes that there was an effect of the combination of buerger allen exercise and diabetic foot exercise to reduce microvascular complications in people with type 2 diabetes mellitus.

**Keyword:** Ankle Brachial Index, Type 2 Diabetes Mellitus, Exercise Therapy

# **THE EFFECT OF OXYTOCIN MASSAGE BY FAMILLIES ON BREAS MILK PRODUCTION IN POSTPARTUM MOTHERS DURING THE COVID-19 PANDEMIC**

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## **ABSTRACT**

Low milk production is an 80% obstacle to postpartum mothers on the first day postpartum. This condition affects the emotional state which results in reduced oxytocin reflex. Oxytocin massage is an effort that can be done to stimulate breast milk production, but postpartum mothers are worried about visiting health workers to get Oxytocin Massage because WHO announced Covid-19 as a pandemic. The purpose of this research was to determine the effect of oxytocin massage by families on breast milk production in postpartum mothers during the pandemic Covid-19. This research used a Quasi Experiment design with Pretest - Posttest One Group approach model. Researchers teach families how to do the correct Oxytocin Massage. Then the family did the Oxytocin Massage for 5 days. Milk production is taken before and after the intervention. The results showed that the t value was 0.000, which means that there was an effect of giving oxytocin massage by the family on the production of breast milk for postpartum mothers in the Pandemic Covid-19. The difference in the mean milk production before and after the intervention was 18.48 ml. Oxytocin Massage can be done by families to increase milk production in the Covid-19 Pandemic.

**Keyword: Covid-19; Oxytocin Massage; Breast Milk Volume; Breastfeeding**

# **THE BACTERIOSTATIC ACTIVITY OF SOAP PROVIDING FOR WASHING WOUNDS FROM THE BETEL LEAF (*Piper betle* L.) AND THE ALOE VERA EXTRACT (*Aloe vera*) ON REDUCTION OF BACTERIAL POPULATION**

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## **ABSTRACT**

Infectious diseases occur as a result of interaction between microorganism and the body which inflict some damage on the body. We often find some pathogenic microorganisms such as *Pseudomonas aeruginosa*, *Staphylococcus aureus*, and *Escherichia coli*. So, the appropriate anti-biotic selection is needed in the infection healing process. Otherwise, if the selection process is irrational, it will create resistant bacteria on the anti-biotic. Thus, some alternative ways should be developed especially the treatment alternative using medicinal plants as a potential new drug. This study aims to determine the bacteriostatic activity of wound washing soap providing of the betel leaf extract (*Piper betle* L.) and the aloe Vera extract. Since it is an experimental design study, it contained anti-bacteria activity test of providing soap of betel leaf extract (*Piper betle* L.) and Aloe vera extract on reducing the number of bacterial colonies of *Pseudomonas aeruginosa*, *Staphylococcus aureus*, and *Escherichia coli*. The result showed there is a reduction of the number of bacterial colonies of *Pseudomonas aeruginosa* ATCC 9027 equal to 6 log reduction (99,99%) from the first population of  $6,1 \times 10^6$  cfu/mL, the bacteria of *Staphylococcus aureus* ATCC 6538 equal to 6 log reduction (99,99%) from the first population of  $2,1 \times 10^6$  cfu/mL, and the bacteria of *Escherichia coli*. ATCC 8939 equal to 6 log reduction (99,99%) from the first population of  $7,0 \times 10^6$  cfu/mL.

**Keyword: Bacteriostatic Activity, Wound Washing Soap, Betel Leaf, Aloe Vera, Bacterial Colonies**

## **EFFECTIVENESS LOVING TOUCH BABY MASSAGE IN INCREASING THE FREQUENCY OF BREASTFEEDING**

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### **ABSTRACT**

Breastfeeding is very important in optimal growth and development of babies both physically and mentally and in improving children's intelligence and preventing children from diseases such as diarrhea, pneumonia and malnutrition which are common causes of death for children under 5 years of age. In breastfeeding, many factors influence, one of which is giving loving touch baby massage, giving loving touch baby massage is expected to affect the frequency of breastfeeding and can increase the closeness between children and parents (Bonding). This research is a quasi experimental research, which is a study that aims to determine the effect that will arise after being given treatment, namely baby massage. The population in this study were 30 children under five in Domas Village, Gresik Regency. The independent variable in this study is loving touch baby massage, the dependent variable is the frequency of breastfeeding. The statistical test used is the Chi Square test for normality. The results of this study can be concluded that the frequency of breastfeeding after loving touch baby massage has increased in frequency by 60.0 %, > 5 times - 10 times greater than babies who have not done loving touch baby massage.

**Keyword: Baby Massage, Frequency of Breastfeeding**

## **DEVELOPMENT OF SOCIAL ASSESSMENT TO DIABETIC FOOT ULCER PATIENTS**

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### **ABSTRACT**

Objective: One of the purpose in diabetic nursing care is to improve the quality of life of patients with diabetic foot ulcer (DFU). Some aspects must be considered in patients with DFU, the aspects include in Social Aspects that are Support of Family, Environment, Self Esteem and Economy. This is because of the support, activity and relationship influence on physiological and quality of life. Unavailability of social assessment to DFU can affect in determining the appropriate diagnosis and intervention. The purpose of this research is to develop the social support in wound assessment instrument for patients with DFU. Method: This research method was mixed method with sequential exploratory approach. There were 9 participants for qualitative methods and 103 respondents for quantitative methods. Validity test were by Pearson product moment with test retest approach, reliability test was by Cronbach alpha. Aiken's V was used to content validity index test for 2 experts. Result: Nine themes emerged from the qualitative methods for social support. 35 items measuring instrument obtained a valid (0,372-0,843 > 0,235) and reliable results (Cronbach alpha 0,959 and 0,976). Result of content validity index is valid by 0, 67-0, and 83. Conclusion: This study found 9 themes for social support, and the development of family support in wound assessment for diabetic foot ulcer patient that consist of 35 items is valid and reliable.

**Keyword: Social Assessment, Diabetic Foot Ulcers**

## PHARMACEUTICAL

### **A PRE SYNTHESIS STUDY : DOCKING, TOXICITY PREDICTION, AND PHARMACOPHORE IDENTIFICATION OF N-((4-FLUOROPHENYL) CARBAMOTHIOYL)BENZAMIDE SERIES AS SIRTUIN-1 INHIBITOR**

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#### **ABSTRACT**

Development anticancer drug targeted which has high activity and low toxicity is still promising. In silico method is possible to visually depict in three dimensions of the ligand (drug) and its receptors, predict toxicity, and identify pharmacophore. We have selected N-((4-Fluorophenyl) Carbamothioyl) Benzamide (NBFFT) series with three steps, Docking, toxicity, and pharmacophore prediction on cytotoxic activity in sirtuin-1. Method: we used Molegro Virtual Docker 5.5 for docking with sirtuin-1 receptors in protein data bank (4i5i.pdb), toxicity prediction by ProTox, and pharmacophore identification by LigandScout 4.3.2. Result: Docking result selected five active compounds compared with hydroxyurea; NBFFT15, NBFFT14, NBFFT19, NBFFT 13, and NBFFT17 from their low rerankscore. Then from toxicity prediction, four compounds eliminated and remained NBFFT13 with dimethylamine moiety. Last, NBFFT13 had several pharmacophore to strengthen their activity on sirtuin-1 amino acids receptor. Conclusion: NNBBFT13 is promising to continue synthesis and next step of drug development sirtuin-1 inhibitor.

**Key words: Docking, Toxicity, pharmacophore, N-((4-Fluorophenyl) Carbamothioyl) Benzamide**

## **PHYSIOTHERAPY**

### **DESCRIPTIVE AND CORRELATION ANALYSIS OF BREAST CANCER PATIENT DATA IN DR. SARDJITO HOSPITAL YOGYAKARTA**

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#### **ABSTRACT**

Breast cancer is a malignant tumor that attacks breast tissue. In Yogyakarta, breast cancer incidence reaches 22.8 / 100,000 / year and ranks the highest of all types of cancer. The disease will have favorable outcomes when detected in the early stages. This study aims to obtain important information about the disease and patient characteristics, thus helping the treatment process. This research was conducted by taking primary data from breast cancer patients at dr. Sardjito General Hospital. In this research, data analysis includes descriptive analysis and correlation analysis. The data obtained were grouped into five groups: laboratory, socio-demographic, clinical examination, therapy, and pathology. Data analysis aims to determine the characteristics of breast cancer patients who are treated at the hospital. Based on the correlation test results, some variables are mutually correlated, and variables correlated with the patient's response status. This study's data processing results are important as a reference for medical personnel in treating breast cancer patients.

**Keywords. Breast cancer; patient data; correlation analysis; chemotherapy**

## MATHEMATICS

### INVESTIGATING STUDENTS' REASONING ABILITY IN SOLVING A GRAPH PROBLEM VIEWED FROM GENERAL MENTAL ABILITY

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#### ABSTRACT

The Aim of this research is to get deeper understanding whether students with different general mental ability would have different reasoning ability when asked to solve a graph problem. The reasoning ability was measured by mathematics basic skills, communication, connection and logical thinking. This research was designed as qualitative study. The subjects were three students of Mathematics Education Department at Universitas Muhammadiyah Gresik of Indonesia which have different general mental ability. Data were collected by conducting a test and in depth interview with each of the subject. After collecting the data, it was analysed using descriptive analysis. The result shows that there are differences of students' algorithmic reasoning in solving a graph problem. Students' with superior and above average ability has good performance in solving the problem meanwhile the average subject get a wrong solution. From mathematics basic skills point of view, all of the subject have a good performance, meanwhile in mathematical communication, superior and average students show good performance written and orally. Superior subject showed the connection of the concept to the daily situation and logical thinking during her explanation of the answer. Above average subject has a poor mathematical communication so did logical thinking? It is contradictory with students with average ability who showed a good performance on mathematical communication and logical thinking although not as good as superior subject.

**Keyword: Investigating Students; Reasoning Ability; Solving A Graph**

# **UNDERSTANDING PROFILES OF STUDENTS WITH AUTISM SPECTRUM DISORDER (ASD) IN VISUALIZING GEOMETRIC OBJECTS BASED ON DIFFERENT LEVELS OF INTELLIGENCE**

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## **ABSTRACT**

This study aims to reveal the understanding of ASD students in visualizing shapes from geometry based on different levels of intelligence. ASD is a developmental disorder characterized by difficulties in social interaction, communication, and engaging in unusual behaviors or obsessions. The subjects in this study were 3 ASD junior high school students who had high, medium and low IQ respectively. This research is a type of qualitative research. Data were collected from task-based interviews with the think-aloud method and using triangulation. Understanding in this study involves several cognitive processes including: interpreting, exemplifying, classifying, summarizing, inferring, comparing and explaining. The results of this study indicate that differences in the level of intelligence affect the subject's understanding in visualizing objects from geometry. In this study it was also revealed that the characteristics of ASD were clearly seen in the process. These characteristics include, laughing alone, repetitive, blank eyes, difficult to communicate and interact.

**Keyword: Autism Spectrum Disorder, geometry visualization, intelligence level**

## **STEM LEARNING IN MATHEMATICS: A LITERATURE REVIEW**

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### **ABSTRACT**

This study is a literature study with a descriptive qualitative research with library research that attempts to describe STEAM learning in mathematics learning. In this literature study research the author uses various written sources such as articles, journals, books, and documents that are relevant to the study in this study. This study focuses on one the is STEM, why should STEM, and how STE M Learning. Ex ample of the application of STEM learning in mathematics.

**Keyword: Steam; Learning; Mathematics**

## **MATHEMATIC STUDY OF THE MAKING PROCESS BATIK MADURA IN KLAMPAR VILLAGE**

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### **ABSTRACT**

Mathematical concepts sometimes arise naturally through the culture of a particular society, through the knowledge and views of certain tribes or groups of people or individuals without going through formal education. Mathematics with cultural nuances (ethnomathematics) will make a very large contribution to learning mathematics. The purpose of this study was to determine and examine the mathematical concepts contained in the process of making Madura batik in Klampar Village and how to use it in learning mathematics. This research is qualitative research with an ethnographic approach. The instrument in this study was a human instrument and data collection techniques were obtained by observation methods, interview methods, and documentation methods. Data analysis techniques were carried out by collecting data, reducing data, presenting data, and drawing conclusions and data exposure. The results of this study are mathematical concepts found in the process of making Madura batik in Klampar Village, covers: rectangles, right-angled trapezoid, isosceles triangle, right triangle, equilateral triangle, cone, tube, truncated cone, prism triangle, rectangular pyramid, circular arc, circle, parabolic curve, line, symmetry, unit of length, unit of time, and comparison. The mathematical concepts contained in the process of making Madura batik in Klampar Village can be used to introduce and understand mathematical concepts through local culture.

**Keywords: mathematical studies, process of making Madura batik, Klampar Village**

## **INVESTIGATING PRE-SERVICE TEACHER UNDERSTANDING ON GEOMETRY THROUGH STEM PROJECT**

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### **ABSTRACT**

The study aimed to investigate the understanding of pre-service teacher on geometry through STEM project. The undergraduate students in mathematics education were the participated in this qualitative study. A geometry project based on STEM education were given to the participants. STEM is a learning strategy that engage four different knowledge those are Science, Technology, Engineering, and Mathematics. In this project the participant should build a stilt house using ice cream sticks. During this project, the participant should made a design that involve geometry concepts such as congruency, parallel lines, similarity, etc. engineering and technology knowledge also involved during the process because the participants also decided to choose the best design and strategy to build the house. For the science aspect, the strength of the house should be tested whether or not the house can be survived by load. Result shows that the participants could conclude that the key strength of the house laid on the position of the stilts so that each part of the house could hold same amount of load. Furthermore the participants stated that they using concept of parallel lines for the stilts and using the more concepts of geometry to make the windows for the aesthetics aspect.

**Keyword: STEM, Geometry, Concept Understanding**

# **SPATIAL IDENTIFICATION OF TRADITIONAL PUBLIC SPACES WITH ETHNOMATHEMATICS APPROACH WITH CASE STUDIES OF TRADITIONAL PUBLIC SPACES OF NIAS, MADURA, AND BALI.**

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## **ABSTRACT**

This research is the initial part of an effort to digitally modeling spatial objects in the form of traditional public spaces. The results of the modeling are expected to become a generator tool, the benefit of which can reconstruct the formation of traditional public spaces in a computerized manner. The method used in this initial research is to describe the traditional public space by looking at its forming geometries and calculating the pattern with an ethnomathematics approach. Ethnomathematics is a way of learning mathematics by looking at what mathematical concepts are applied in cultural products, e.g. batik patterns, ornaments, artifacts, buildings, and so on. This approach has not been widely applied to architectural or urban spatial objects/spaces, so that is the background of this research. The case studies taken are traditional public spaces in Nias - North Sumatra, Madura - East Java, and Bali. From the three case studies, it was identified the emergence of squares, trapezoid, and other polygonal shapes with the emerging patterns showing transformations such as symmetry, repetition, rotation, and reflection. The identification results are represented in vector patterns with its calculation formula, which can be used as the material in programming the modeling digitally.

**Keyword: Ethnomathematic, Geometry, Digital Modelling, Traditional public spaces**

# **MATHEMATICAL MODELLING OF NEUTROPENIA DUE TO CHEMOTHERAPY EFFECTS ON BREAST CANCER CASES**

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## **ABSTRACT**

Breast cancer is a type of carcinoma with a high prevalence. The treatment of breast cancer through chemotherapy can cause a risk to healthy cells throughout the body. The neutrophil is one of the cells that is influenced by chemotherapy drugs. Chemotherapy induced neutropenia is one of the most common toxic effects experienced by patients and often threatens chemotherapy to use efficiency. In this paper, we introduce an interaction model between blood components, i.e., Neutrophil, Lymphocytes, and Albumin, with chemotherapy drugs. The model is important to understand the Neutropenia effect due to chemotherapy in mathematical perspective and to calculate breast cancer patients' survival level. Our model is a four-dimensional system of the first order ODE with 13-dimensional parameter space. We focus our study for the steady state conditions and the bifurcations when the parameter values are varied. Here, we also study the role of Albumin for reducing the neutropenia effects for breast cancer patients mathematically, where the results can be used as an alternative solution for treating neutropenia in a breast cancer case.

**Keyword: Breast Cancer, Dynamical System, ODE, Neutropenia**

# **THE EFFECT OF LEARNING TECHNIQUES ON STUDENT'S UNDERSTANDING, PROBLEM SOLVING, AND VISUALIZATION**

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## **ABSTRACT**

Each teacher has various learning techniques. The purpose of this study was to determine the effect of learning techniques given by the teacher on student's understanding, problem solving, and visualization. The research method used was a qualitative method. The research subjects were second grade elementary school students. Data were collected using task-based interview techniques. Interviews were conducted in depth with videos for observation. The material used for research was the concept of division. The results of research and discussion concluded that the learning techniques given by the teacher to students affect student's understanding, problem solving, and visualization. Students, who are taught the concept of division as subtraction, have an understanding, problem solving, and visualization that division was subtraction. Students, who are taught the concept of division as an ordinary division, have understanding, problem solving, and visualization that division was a division as people usually know. Thus, the author suggests teachers to pay more attention to the development of understanding, problem solving, and visualization of students in providing learning techniques.

**Keywords: Learning Techniques, Understanding, Problem Solving, Visualization**

## **OBSTACLE ANALYSIS FOR ONLINE LEARNING ASSESSMENT IN MATHEMATICS SUBJECTS DURING THE COVID-19 PANDEMIC**

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### **ABSTRACT**

This research aims to determine the constraints of teachers in conducting online learning assessments in mathematics subjects in the covid-19 pandemic period. This research uses a qualitative approach and the type of research is descriptive. The subjects of this study were 12 elementary school teachers selected using purposive sampling techniques, those were teachers who did online learning. Analysis of the constraints of online learning in mathematics during the covid-19 pandemic was based on the results of interviews, and questionnaires. The results showed several constrains, including the difficulty in developing assessment instruments for learning mathematics, therefore the form of assessment instrument most widely used was the multiple choice test. Likewise the assessment method that is often used is quizzes / tests. The objectivity of student learning outcomes is low. Not all students have a device, so not all students get learning and assessment. Less effective in measuring mathematical abilities related to procedural, reasoning, and problem solving. And less able to measure students' affective abilities.

**Keyword: Assessment constraints, Online, Mathematics**

# **THE DAY OF THE WEEK EFFECT IN RETURN AND VOLATILITY OF THE FIVE CRYPTOCURRENCIES MARKET**

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## **ABSTRACT**

Cryptocurrency works on a system that allows people to make payments all over the world without the need for any intermediary. Most digital currencies experience frequent periods of intense volatility. This paper examines the day of the week effects in return and volatility on Bitcoin, Ethereum, Ripple, Litecoin, and Tether currencies. To estimate volatile variance, this research uses five ARCH family models: ARCH, GARCH, EGARCH, and TARCH and PARCH Models. The best models are derived based on Akaike Info Criterion and Schwarz Criterion. The sample periods vary based on the date of the initial release of each currency up to 31 December 2019. Results indicate the Power ARCH (PARCH) is the best model for Bitcoin and Litecoin, Threshold ARCH (TARCH) model is the best for Ethereum, Ripple, and Litecoin, and the EGARCH model is for Tether. Each model shows a different day of the week effects on each currency.

**Keyword: arch, garch, egarch, tarch, parch**

# **ETHNOMATHEMATICS: EXPLORATION OF THE BENANG BINTIK BATIC OF THE DAYAK TRIBE**

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## **ABSTRACT**

This article is an exploratory study of the mathematical elements that exist in the Benang Bintik Batic of the Dayak Tribe of Central Kalimantan. This study aims to describe the mathematical concepts contained in the motives of Benang Bintik Batic and its use in mathematics learning. In this research, the motives of Benang Bintik Batic are Batang Garing, Dandang Tingang, and Bajakah Kalalawit. This study used a qualitative approach to exploration methods. The results of the study found that there are mathematical concepts in the three motives, including straight lines, curved lines, circles, points, symmetry, and geometry. The mathematical concepts contained in the three of Benang Bintik Batic Motives can be used in understanding the concept of mathematics and fostering a love of local culture in school.

**Keyword: Ethnomathematics, Benang Bintik Batic, Dayak Tribe**

## **DISCRETIONARY ACCRUAL PUBLIC COMPANIES IN INDONESIA**

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### **ABSTRACT**

The purpose of this study is to analyze dividends on company earnings management, with return on asset as a moderating using partial least square. The results of this study giving a proof that Dividend Policy didn't influence to Earnings management, and Return on Assets is not proved to strengthen Dividend Policy relation to Earnings Management.

**Keyword: Return on Assets, Dividend Policy, Earnings Management.**

## EDUCATION

### DESIGNING MEASUREMENT MODEL OF SELF DETERMINED LEARNING DURING THE COVID-19 PANDEMIC

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#### ABSTRACT

After Covid-19 came to Indonesia, university students carry out e-learning to continue academic activities. Necessarily, this is the appropriate moment to be improving the quality process of students learning. The big concept of e-learning is the independent learning of students until it reaches their goals. Therefore, the lecturer should identify factors that are controlled and direct to the e-learning process. This research aims to design the measurement model of self-determined learning skill university students with a literature review to find the variables affected by the e-learning process. There are Self-directed, Self-regulated, and self-determined learning, three potential variables that can affect the e-learning process during the Covid-19 pandemic.

**Keyword: e-learning, self-directed learning, self-regulated learning, self-determined learning**

**PRE-SERVICE TEACHERS' SATISFACTION TOWARDS ONLINE  
LEARNING PROCESS IN INTERNATIONAL INTERNSHIP PROGRAM IN  
THAILAND**

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**ABSTRACT**

By the end of 2019, the COVID-19 outbreak forced many educational institutions to change their teaching-learning process into online learning. In University of Muhammadiyah Gresik (UMG), one of the focuses applied is teaching practice. UMG provides students with an opportunity to deepen their teaching skills by joining the International Internship Program in Thailand. The essence of the program is to give students experiences acting as Pre-Service Teachers in teaching English for elementary schools students. However, due to the conditions of COVID-19 pandemic, the program was transferred online. Regardless of the online learning process, pre-service teachers found that it was challenging to perform the process. This research focused on analyzing pre-service teachers' satisfaction towards the online learning process. The researchers distributed a survey to 11 (eleven) pre-service teachers enrolled in the International Internship Program. 5 (five) indicators were used in the survey; (1) instructor-to-student interaction, (2) affordances, (3) institutional support, (4) student-to-student interaction, and (5) course design & technical development. Based on the result, it was found that the institution gave full support to the pre-service teachers that led them satisfied with the assist. However, in general, the pre-service teachers were not satisfied with the process of online learning. The problems were mostly occurred in the interaction process, affordances, course design and technical development.

**Keyword: online learning, intership program, pre-service teachers' satisfaction**

# **LECTURERS' RESISTANCE TO IMPLEMENTING DISTANCE LEARNING**

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## **ABSTRACT**

There has been extensive research in the field of distance learning all over the world including Indonesia. However, most of the research tends to focus on improving effectiveness of distance learning implementation and on students' perspectives as the main subjects. In fact, this leads to neglecting the lecturers' needs as they are expected to implement distance learning effortlessly just like their experience in traditional classroom learning. Yet, distance learning and classroom learning are very different in many aspects. This contributes to half-hearted distance learning implementation in most Indonesian universities. Therefore, the purpose of this mixed methods study is to investigate lecturers' resistance to implementing distance learning in Indonesia. The research study seeks to determine Indonesian lecturers' resistance factors based on their levels of communication technology mastery, pedagogy understanding and perceptions of distance learning. This study will use quantitative survey instruments to measure the current levels of communication technology mastery of those lecturers using distance learning in Indonesia, while qualitative interview instruments will be used to examine lecturers' pedagogy understanding and perceptions of distance learning.

**Keywords: Distance Learning, Lecturers' Resistance**

## INFLUENCE OF ENVIRONMENTAL SETTING ON MATERNAL COMFORT AND SATISFACTION

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### ABSTRACT

Childbirth is a valuable experience for women. Psychological disorder such as anxiety is often felt by women during labor, it can be solved by physical environmental support in terms of environmental modifications that put women in comfort to reach labor satisfactory. By modifying a home-like labor environment, it boosts women comfort and make easier birth, it leads to maternal satisfaction. Labor environmental setting is conducted by involving stimulus of the senses including sight, hearing, taste, smell and touch. This study aimed to analyze the influence of labor environmental settings on maternal comfort and satisfaction. This study belongs to a quasi-experimental study with a non equivalent control group design. Samples in this study were all women giving birth in Bidan Praktik Mandiri West Bandung regency and Cimahi by involving 60 women. The draft of bivariable analysis by applying Mann Whitney Test and multivariable analysis by using two-proportion test with SPSS assistance. The results show that there is an influence of labor environmental settings on maternal comfort and satisfaction ( $p < 0.05$ ). It indicates that mother in control group have risk 4,25 feel uncomfortable than intervention group, and mother in control group have risk 3,33 feel unsatisfied than intervention group. At last, it concludes that there is an influence environmental settings of labor on maternal comfort and satisfaction.

**Keyword: environmental setting, maternal comfort, satisfaction**

**THE MATERIAL DEVELOPMENT IN TEACHING ENGLISH SAVVY ON  
DEPARTMENT OF BUSINESS CREATION AT BINA NUSANTARA  
MALANG CAMPUS**

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**ABSTRACT :**

Language proficiency is a necessity for a forum where scientific discussion and achievements as well as professional issues can be discussed. It emerged itself as the international language in different fields such as business and commerce, science and technology and international relations and diplomacy. In teaching and learning environment, Knowledge of material development is important for understanding the concept of improving educational environment. If lecturers do have the knowledge of this, they will better in understanding the importance of each design they are utilizing in teaching the class and how it generates to units which lead to the successful goals of teaching and learning. This research aims to deliver the process of material development of English Savvy in Business Creation department to match student's need of English acquisition. Through qualitative research method, it was found that there were three processes of material development they are; adopting, developing, and adapting the material.

**Keyword: material development, english savvy, business creation department**

## **ENGLISH PROFICIENCY TEST: INVESTIGATING ITS MISMATCH WITH STUDENTS' NEEDS ON INDUSTRIAL ENGINEERING DEPARTMENT**

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### **ABSTRACT**

Needs analysis is a part of research activities which is believed to be an important part of analyzing students learning needs. The purpose of this study is to investigate the mismatch between the English proficiency test (EPT) held in University of Muhamamdiyah Gresik (UMG) with students' needs on Industrial Engineering Department. Qualitative and Quantitative designs will be employed in this study. Questionnaire and interview are needed to collect the data. The analyzed data will show the needs to assess the content and context of the English Proficiency Test in relation to the needs of students. A further research on developing English Proficiency Test in University of Muhammadiyah Gresik will be suggested if the study find the mismatch between the EPT and the students' needs.

**Keyword: English Proficiency Test, mismatch, Industrial Engineering, needs analysis**

**PERCEPTION AND BARRIERS TOWARDS ENGLISH LANGUAGE  
PROFICIENCY TEST AMONG UNDERGRADUATE STUDENTS AND  
INSTRUCTORS AT UNIVERSITAS MUHAMMADIYAH GRESIK**

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**ABSTRACT**

The study aims to know the students perception and their barriers in taking English proficiency test. This study also investigates deeply on the English Proficiency Test instructors at Universitas Muhamamdiyah Gresik. A mixed method study which involves Quantitative and Qualitative design will be carried out. The quantitative data will be collected through questionnaire, while the qualitative data will be collected through a questionnaire based. This study involves 50 students who have sit for the test, and 3 instructors of the test. The result of the study should address the improvement of the test takers, instructors, and the policy of the test.

**Keyword: English Proficiency Test, Barriers, perception**

## **TIME AND COST EFFICIENCY: THE USE THATQUIZ.COM PLATFORM TECHNOLOGY FOR SUMMATIVE ASSESSMENT IN SCHOOLS**

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Ahmad Muhlis  
IAIN Madura

### **ABSTRACT**

This study examines the efficiency of summative assessment in schools utilizing the thatquiz.com assessment platform. The objectives of this study were (1) to describe the time efficiency of summative assessment using thatquiz.com in schools, and (2) to describe the cost efficiency of summative assessment using thatquiz.com in schools. This study uses a qualitative design. The location of this research is SMPN 3 Malang. Data were collected through observation, document study, and interviews. Interviews were conducted with the vice principal of the curriculum field. Investigation of validity data used triangulation, with additional interviews to the curriculum team and teachers at the school. Summative assessments using the thatquiz.com platform show a time efficiency of 44% compared to conventional assessments. The use of technology saves time from the planning, processing, and reporting stages of the assessment. Summative assessments using the thatquiz.com platform can save costs up to 65% compared to conventional summative assessments. The greatest efficiency is in the summative assessment processing stage because the costs of correcting or scanning student work, changing grades, and analyzing question items are not done manually. During the COVID-19 pandemic, the use of technology with the thatquiz.com platform for summative assessment in schools can be an alternative solution.

**Keyword: Efficiency, Assessment, Thatquiz.com**

## **STUDENTS' PERCEPTION ON ONLINE LANGUAGE LEARNING DURING COVID-19 PANDEMIC**

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### **ABSTRACT**

The COVID-19 pandemic forces students everywhere around the world to study at home and it is the duty of educators to make sure that they are studying effectively regardless of the situation. This research aims to find out how students perceive their experience in learning English online for the past few months during the pandemic. A survey consisting of 13 questions was conducted to 118 students of Bina Nusantara University. The survey reveals various results, such as a staggering number of students feeling that they have got too many assignments, as well as finding it hard to find motivation to study at home. The survey also uncovers other issues namely lack of productivity, students' uncertainty about their language skill improvement and a number of problems that affect the learning process. It is expected that this research will help educators to adapt to more suitable teaching methods for the pandemic situation.

**Keywords:** COVID-19, pandemic, online learning, language learning, students' perception

## **BEYOND THE SPOKEN WORDS: THE ROLES OF BODY POSTURES IN SUPPORTING READING ALOUD ACTIVITIES**

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### **ABSTRACT**

This paper explains the importance of reading posture / body posture during parent-children read aloud sessions and how they support intimacy as well as maximize the process of knowledge construction during their reading sessions. As part of a larger ethnographic study of home literacy practices, we would like to share some fragments of our data that focus on the words and the body postures of a mother and her 8-year-old son's interaction in 10 read aloud sessions. We found that in addition to using words that were comforting, the mother also used affectionate body contacts, and various reading postures that help the child engaged with the book during the reading sessions. In the light of these findings, we suggest that parents try varying their reading posture/body posture and familiarize affectionate body contact to enhance their reading together session.

**Keyword: reading posture, body posture, read aloud, family literacy**

## **TEACHERS' PERSPECTIVES ON E-LEARNING CLASSROOM IN BINUS UNIVERSITY**

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### **ABSTRACT**

The sudden outbreak of the coronavirus in Indonesia led to the sudden closure of campuses. However, the Indonesian Ministry of Education required all universities to retain the teaching-learning process despite the suspension of the classes. In this condition, the implementation of e-learning classroom is considered as suitable solution. This study explored lecturers' perceptions toward the implementation of e-learning classroom. To understand their point of views, challenges and attitude, a set of online questionnaires was distributed, and the data were analysed quantitatively. The survey targeted 50 lecturers from a private university in Indonesia which offers all classes implementing e-learning. In the e-learning classroom, the lecturers were required to teach actively, build students' engagement, and assess students' understanding regarding the content of the courses. The teaching activities included managing online discussion forum, discussing the video, and conducting video conference. The result of the data analysis presented some issues regarding how lecturers perceived the implementation of e-learning classroom and also the opportunities and challenges that e-learning created.

**Keyword: e-learning, challenges, opportunities, perceptions**

## WAYS WITH WORDS: EXPLORING CHILDREN AUTHOR'S VOICES IN INDONESIA'S CHILDREN BOOK SERIES (KKPK)

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### ABSTRACT

Voice in literacy studies has been defined and redefined from different theories or perspectives. Current studies on voices in children literary work have explored the relationship between the authors' voices with their agency, identity, or even ideologies. Authors of young children's literatures are predominantly adults. Recent studies have shown how adult author voices are represented in young children's literatures with a focus on the issues of identities, agency, and ideologies. Relatively less is known how children author voices are represented in examining such compelling issues. With particular attention to the notions of "silencing and silenced," this paper aim to investigate children author voices in navigating the issues of identities, agency, and power in an adult-centric publishing world. Privilege stances of children authors-voices that are rarely heard and examined. This paper reports the analysis of 30 stories from three anthology volumes of Kecil-Kecil Punya Karya (KKPK) series that were published by Mizan from 2016 to 2020. The analysis focused on children authors' agency and power in developing characters, choosing topics, writing styles, meta narratives, rhetoric, convention, and clarity. The result of the analysis indicates that the voices of the KKPK children shape and are shaped by their sociocultural contexts.

**Keyword: silence and unsilencing, authorial voices, content-analysis**

## **SUSTAINING LOCAL CULTURE THROUGH DEVELOPMENT MODEL OF REALISTIC CULTURE OF MADURA (RE-MADU)**

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### **ABSTRACT**

This study aims to preserve local culture through the development model of RE-MADU (Realistic Berbudaya Madura), as well as its learning Media that meet the valid, practical, and effective criteria. This research is a development research that refers to the general education development model of Tjeerd Plomp which consists of initial investigation phase, design phase, implementation phase; and test, evaluation and revision phases. Learning media obtained in the form of lesson plans (RPP), teacher handbooks and student handbooks; and test learning outcomes. The research instrument used is observation, student response questionnaire, and validation sheet. Based on the results of the second (final) trial obtained: RE-MADU learning model and its learning device are valid and can be used with little revision. The observation results of the learning activity are in good category. It is effective because the result of student learning reaches classical completeness, student activity during learning process including in very active category and student give positive response to learning model. The researchers conclude that RE-MADU learning model is in accordance with valid, practical, and effective criteria by following the process stages: Preparation, Problem presentation, Understanding and solving problems individually, Comparing answers, Presentations, and Drawing conclusions.

**Keyword: development model, realistic, madura culture**

## **THE FORM OF CULTURE IN PAREBHÂSAN MADURA**

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### **ABSTRACT**

Parébhâsan Madura as a genre of oral literature in Madura contains various values of life that are still actual with the spirit of the times, especially the Madurese community. Parébhâsan Madura as a result of folk literature, in fact contains certain values that need to be preserved and imitated by today's young generation. This research is a qualitative research. The method used in this research is descriptive method. The description method is a method that describes or describes facts or symptoms systematically about religious, philosophical, and ethical values in the parébhâsan Madura. The data collection technique is done by using documentation technique. The results showed that in Parébhâsan Madura there were 1) forms of religious values; 2) forms of philosophical values; 3) forms of ethical values

**Keyword: religious, philosophical, and ethical values, parébhâsan Madura**

# **IMPOVING SPEAKING SKILL THROUGH INSTRUCTION ABOUT ORAL CLASSROOM PARTICIPATION IN MADURA UNIVERSITY**

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## **ABSTRACT**

Method is one of the key where in Teaching Learning Process is success or not. Studies in language learning have addressed the necessity of classroom interaction or students' oral participation in class. However, getting students to respond in a language classroom, especially a foreign language class is a problem that most language teachers face. The purpose of this article is to suggest remedies to language learners' reticence, using Indonesian students (University of Madura) as participants. Instruction about classroom participation was provided to students in the experimental group to see whether this treatment can 1) increase students' oral participation in class, and 2) lead to the improvement of students' speaking proficiency. Both hypotheses are supported by the data of the study. Suggestions for participation instruction into regular foreign language classes are also provided. Instruction about classroom participation is effective way to improve the students' Speaking because in the classroom the students must be active and getting understanding in lecturers' instruction. Participation instruction provides an opportunity for lecturer and students to talk about the differences in their classroom expectation and also direct students toward expected classroom expectation.

**Keyword: improving, instruction, classroom participation**

## **EDUCATION 4.0 AND ITS PROBLEMS IN INDONESIAN SCHOOLS**

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### **ABSTRACT**

Nowadays, the technology rapidly growing and continues to evolve in many countries in the world including Indonesia. The technology growing and used in many aspects of life. This remarkable technological change commonly named as the era of industry 4.0. In this industry 4.0 era, there are many changes in many aspects of life including in education, and therefore we need a lot of knowledge and readiness to be able to face and follow the developments of this era properly. Furthermore, the massive use of technology in education brings us to the era of education 4.0. This study aims to find out the problems that might be faced in facing the education 4.0. This research applied the quantitative method. The data was collected using the open questionnaire among school teachers in several areas in Indonesia with the low national examination scores. The number of participants in this study was 858 participants. The results of this study found that the problems related to education 4.0 in Indonesia are: 1. inaccurate teacher teaching methods, 2. lack of student interest and motivation and, 3. inadequate school infrastructure. Recommendations and further discussion will be included.

**Keyword: education 4.0; teacher, technology, student, Indonesia**

## **THE CHALLENGES OF INDONESIAN TEACHERS IN FACING THE EDUCATION 4.0**

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### **ABSTRACT**

The development of technology in this industrial revolution had an enormous impact on life particularly in education. The education 4.0 refers to the era of technological guidance that led to the digitization of information and the use of artificial intelligence. In education 4.0 there were a lot of ease and attraction offered by digital-based learning. For example, teacher and student interaction which was once just face to face in class, now many media applications can be used to interact online. However, the education 4.0 also comes up with the challenges. Therefore, this study aims to explore what are the challenges among teachers in facing the education 4.0. This study used the quantitative research method. The data was collected using the open questionnaire among school teachers in Indonesia. There are 858 teachers who participated in this study as the respondent. The study resulted that the challenges of teachers in facing the education 4.0 are lack of teacher training, inappropriate of teaching methods, poor of technology literacy, lack of competence, and lack of learning resource. Recommendations and discussions will be further explained.

**Keywords: education 4.0; teacher, technology, challenges, Indonesia**

## **THE NEED ANALYSIS OF TEACHER COMPETENCES ON EDUCATION 4.0**

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### **ABSTRACT**

Education 4.0 is a teaching and learning activity based on technology. Currently, the advances in technology and science are very influential in many aspects of education. In education 4.0 humans and technology are aligned to create new opportunities creatively and innovatively. The role of teachers in learning in the 4.0 era has changed and therefore become a challenge for teachers, as they have to adjust with the new competencies in learning. In response to the education 4.0, this study aims to analyze the teacher competencies needed in education 4.0 era. The participant of this study consisted of 858 teachers in several regions in Indonesia, especially the regions with the low scores in national examination. This study used the quantitative method to analyse the research data. The data were collected by giving an open questionnaire asking about the problems faced by teachers in their teaching activities. The results of this study indicate that teachers' competencies that are needed to be improved are, 1. the ability to compile the lesson plans using Higher Order Thinking Skills (HOTS), 2. the ability in using the Information Technology, 3. the ability to communicate with students and 4. the ability to build the teamwork among teachers. This study also found that the competence of teacher cooperation and communication was still not evenly distributed between provinces. Thus, requires various efforts to increase and equalize the quality of education in a systematic and sustainable manner. Recommendations and discussion will be explained further.

**Keywords: Education 4.0, Teacher, Competence, Indonesia**

## **THE EFFECT OF AUTHENTIC PROBLEM-BASED LEARNING IN ENHANCING READING COMPREHENSION**

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### **ABSTRACT**

Limited background knowledge, lack of student motivation, limited vocabulary, and difficulties to comprehend materials are still problematic commonly for students' in reading comprehension. The purpose of this study is to enhance reading comprehension through authentic problem-based learning of VIII grade students in SMPN 1 Babat. A mixed method design is employed with quasi-experimental of pre-test and post-test group (32 students in experimental group and another 34 in control group), and a survey to check students readiness which are analyzed quantitatively. The researchers are working to employ authentic problem-based learning by allotting materials contextually to real situation such as journey/trip, holiday and travelling videos then let students discuss story from the text to solve problems unconsciously. An interview of the respondents is also employed to see opinion of students related to affective aspects. Results show that there is significant result of the increasing comprehension of the students ( $p$  is below 0.05). Data from questionnaire and interview also show that most of the respondents rocket motivation and interested in reading comprehension in which they are enthusiastic to learn fun, easy, and active in class. Usefull procedures of implementation as well as further recommendations are also provided in this study.

**Keywords: authentic problem based learning, reading comprehension**

## **GAMIFICATION FOR IMPROVING STUDENTS' COMPREHENSION: A CASE STUDY FOR LEARNING HISTORY**

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### **ABSTRACT**

The research studied how gamification and blended-learning approach could help improve students' understanding regarding a specific topic or course as compared to a blended-learning only approach. The participants for this research were students of Bina Nusantara University, English literature program who are currently enrolling with the History of English Language and Literature being part of their learning course and program. This research used a mixed approach on its data gathering process of both quantitative and qualitative methods to learn about the effectiveness of the gamification & the students' overall opinion of the gamification method itself. Positive improvements were found on students who joined the gamification group compared to the students who belonged in the blended-learning only group. This study proved the mixed method of gamification and blended learning to be effective to help students' in their learning process.

**Keyword: gamification, blended-learning, history, english language, english literature**

## **NEED ANALYSIS OF ENGLISH LEARNING TO IMPROVE EMPLOYABILITY SKILLS BASED ON BLENDED LEARNING**

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### **ABSTRACT**

This study aimed to know the need analysis of students in learning English to improve employability skills based on blended learning. The need analysis was conducted on 68 students of management business industry department of Sekolah Tinggi Teknik Malang. This need analysis was done through descriptive analysis by using a questionnaire as a data collection instrument. The result of this need analysis shows that almost of students do agree and consider very important if employability skills are applied on learning English. They assume that the most important employability skills are communication, and initiative and dare to try. Besides, it shows that the most difficult language element is grammar and the most difficult language skills are speaking and writing. To develop students' language skills, they need learning video, recorded dialog, presentation recording, a short article with difficult words list, role play topic, outline paragraph and a clear writing topic. In addition, the student feels that the blended learning through learning management system has not been deal with their needs. They think that there are too much assignments and less teacher's explanation and discussion. For the future study, it can be used as a reference to develop a syllabus, teaching material, and learning evaluation of learning English for management Business Industry department.

**Keywords: need analysis, employability skills, blended learning**

## **MADURESE LITERATURE: MEDIA FOR CHARACTER EDUCATION IN PESANTREN**

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### **ABSTRACT**

This article discusses Madurese literature as an alternative media for character education in Islamic boarding schools. Madurese literature describes the qualities of character values and good traits. The purpose of this research is to describe the literary form of Madura which can be used as a medium for character education and its use as a medium of learning in Islamic boarding schools. The research location is in the Syekh Abdurrahman Rabah Pamekasan Islamic Boarding School. Sources of research data in the form of literature and resource persons. Theoretical study is used to find the possibility of the alternative realization. The discussion focuses on the literary form of Madura as a medium for character education in Islamic boarding schools, namely gurindam. Gurindam as a medium for character education in Islamic boarding schools can be used receptively in the form of determination as teaching material and expressively in the form of managing emotions, feelings, enthusiasm, and the perspective of life of students.

**Keyword: Madura literature, gurindam, learning media, character education, pesantren**

# **CULTURE OF RELIGIOUS MODERATION THROUGH THE ACTUALIZATION OF ISLAMIC EDUCATION WASATIYYAH TO IMPROVE RELIGIOUS RECONNECTION AND TOLERANCE IN INDONESIA**

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## **ABSTRACT**

Many issues and actions reflect the behavior of terrorism, extremism, radicalism, intolerance, understanding takfiri (happy to worry), and unilateral truth claims, and so on. This makes the nation-state necessary to seek solutions and prevention (preventive/anticipatory) one of which is to inaugurate the religious behavior that is tolerant, inclusive, and moderate. It can be seen from the viewpoint of religion, especially Islam to give the concept of Islamic Wasatiyyah through good and faithful religious moderation behavior. Therefore, it is crucial to research the actualization of Wasatiyyah Islamic values through religious moderation to improve the harmony and tolerance of religious people in Indonesia. The purpose of this research is to know the meaning and concept of Islamic Wasatiyyah (religious moderation) in the form of value and know the strategy and method of actualization of Islamic Education values Wasatiyyah (religious moderation) in increasing the harmony and tolerance of religious people in Indonesia. This research uses qualitative methods that belong to literature research. The data collection uses techniques with literature and the documentation analyzed by heuristic analysis methods, verification, interpretation, and synthesis. The results of the study showed that the culture of religious moderation possible to create by Islamic education Wasatiyyah. It constructed of tolerance, moderate, inclusive, anti-violence, justice, mutual assistance, harmony, and equal in the way of an accommodating education system to increase the unity among religious people in Indonesia.

**Keywords: Islam, wasatiyyah, tolerance**

## **MISCONCEPTION PROFILES OF SCIENCE ON ELEMENTARY SCHOOL TEACHERS**

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### **ABSTRACT**

Primary school teachers have varied undergraduate educational backgrounds, both linear and non-linear with basic education science, but in reality in the field, it requires a classroom teacher to deliver almost all subjects in elementary school. A teacher who experiences misconceptions will transmit misconceptions to students, therefore elementary school teachers must avoid misconceptions. Science subjects in elementary schools are an integration of the content of the disciplines of biology, physics, chemistry and astronomy which are prone to misconceptions. This research was conducted to detect the occurrence of science misconceptions in elementary school teachers through qualitative descriptive research. The method of identifying misconceptions that will be used is the CRI (Certainty of Response Index) method, which is a model of true and false statements accompanied by reasons and levels of confidence in answering questions and supported by interviews. The results showed that the three subjects experienced misconceptions with a level of 50%, 62.5% and 62.5%, having a tendency to misconceptions about science that came from the literature used as a learning resource as well as personal perceptions of unconfirmed science. The results of the research are expected to be the basis for developing learning resources needed at the basic education level, developing programs for strengthening mastery of science concepts for teachers. The results showed that the three subjects experienced misconceptions with a level of 50%, 62.5% and 62.5%, having a tendency to misconceptions about science that came from the literature used as a learning resource as well as personal perceptions of unconfirmed science. The results of the research are expected to be the basis for developing learning resources needed at the basic education level, developing programs for strengthening mastery of science concepts for teachers. The results showed that the three subjects experienced misconceptions with a level of 50%, 62.5% and 62.5%, having a tendency to misconceptions about science that came from the literature used as a learning resource as well as personal perceptions of unconfirmed science. The results of the research are expected to be the basis for the development of learning resources needed at the basic education level, the development of programs for strengthening the mastery of science concepts for teachers

**Keyword: misconception profiles, science, elementary school teachers**

## **THE DEVELOPMENT OF BOJONEGORO LOCAL CULTURE-BASED INDONESIAN SUPPLEMENT BOOK AT THE ELEMENTARY SCHOOL THROUGH PICTURE AND PICTURE LEARNING MODEL**

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### **ABSTRACT**

book through Picture and Picture Learning Model. The purpose of this research was to describe the development process and quality of local culture-based Indonesian supplement book at the 4th grade of Elementary School by using picture and picture learning model. The quality of the developed supplement book was analyzed based on the products and their use in the classroom. This Research and Development referred to the four-D model. However, this research is only conducted up to the Developing stage without Distributing stage, because this research product is specialized for the Trial School. Collecting data was conducted by using documentation, observation, questionnaire and test techniques. The data was analyzed by using qualitative-quantitative descriptive. Based on this research, the obtained percentage results are 96% material feasibility, 95% presentation feasibility, 96% linguistic feasibility and 95% graphic feasibility. All these categories are included in quality category (good / very decent). The observation results of the teacher's and student's activities are 97,8% and 98%. The response of the teacher and students to the smart tree media are 93,8% and 95,4%. The average of student's learning outcome is 94,04, in accordance to the passing criteria that is 75.

**Keyword: local culture, elementary school, picture and picture learning model**

**COVID-19 STRIKE IN HIGHER EDUCATION: STUDY OF BINA  
NUSANTARA UNIVERSITY FILM STUDENTS' ATTITUDE & ADAPTATION  
TOWARDS DISTANCE LEARNING**

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**ABSTRACT**

At the end of 2019, the spread of novel coronavirus - SARS-CoV-2 (COVID-19) has sent chaos worldwide. This pandemic has affected higher education, and it caused learning activities in schools and universities were suspended due to infectious outbreak concerns. The lockdowns and social distancing enforced have interrupted conventional learning habits. As the best choice at this moment, face to face learning shifting to online learning in an instant. This study explores and investigates students' attitudes and how they adapt to distance learning. The sample collected by the researcher's questionnaire was analyzed and explored through open-ended and closed-ended questions. Researcher spread questionnaire around May-June 2020. The survey included three essential questions: (1) individual demographic, (2) their recent conditions, (3) their response to distance learning, and what they expect in the future. There was a total of 55 replies, and most students reported decreased motivation due to various reasons.

**Keyword: distance learning, covid-19, higher education, online learning**

**CULTURAL VALUE INHERITANCE: THE CONCEPT OF INFORMAL  
EDUCATION FOR THE OSING COMMUNITY IN KEMIREN VILLAGE,  
BANYUWANGI**

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**ABSTRACT**

Cultural crisis in modern times become problematic identity in society. Intensified globalization has crushed customs in society. Identity began to be abandoned by the younger generation into the early loss of the identity of an area. Kemiren a tourist village that has the diversity and local knowledge that needs to be maintained and preserved along with the progress of time. Cultural inheritance is a concrete step to protect, inherit, and preserve local culture. Potential Kemiren Banyuwangi Tourism Village has an attraction for tourists. The purpose of this study to describe the cultural inheritance of the tribe of Osing through informal education. The research method using a qualitative approach and data collection techniques with interviews, observation, and documentation. The results of this study illustrate the cultural inheritance Osing tribal communities through some stage of internalization of culture, socialization, enculturation with dance performances, cultural habituation, and through the elements of culture that is trusted by society Osing tribe.

**Keyword: cultural inheritance, informal education, habituation, cultural values,  
ethnic osing**

**THE DEVELOPMENT OF "MADURA HEROES" MATHEMATICS  
EDUTAINMENT CONTAINS CULTURAL EDUCATION AND NATIONAL  
CHARACTER IN SET THEORY**

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**ABSTRACT**

Learning innovation continues to be carried out through technology. Through this, learning is expected to be carried out independently, be interesting, creative and fun for students. Comics and games are learning media that can be developed as a supplement in the teaching and learning process and also the character building of the characters in the comics. Moreover, mathematics is a subject that is considered difficult and abstract, so it needs to be packaged in an attractive manner. This research develops a product in the form of developing Mathematics comics with Madura Heroes characters and Mathematics games based on Android. The media is designed using Madura hero characters in order to introduce heroes in Madura. So, it can also form a personal character through these figures. In addition, students are expected to be more interested in learning Mathematics through the existence of Mathematics comics. In this research, the initial process carried out was a survey to the field related to the analysis of needs in making comics including the set of teaching materials, the need for comic creation software, and the introduction of Madura heroes. The method used in this research is the development using the 4D Model which includes needs analysis, mathematics comic design, educational game design, validated teaching materials by media experts and material experts. The validation results show that games are 87.2175% and comics are 88,582%. This shows that the media can be used in supplements in learning Mathematics set theory.

**Keywords: edutainment, Madura heroes, set**

**THE EFFECTIVENESS OF EDUCATIONAL VIDEOS AS LEARNING MEDIA  
FOR STUDENTS' SKILLS IN THERAPEUTIC COMMUNICATION FOR  
MENTAL DISORDERS PATIENTS IN THE UNDERGRADUATE NURSING  
PROGRAMME OF NUSA NIPA UNIVERSITY**

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**ABSTRACT**

When laboratory practicums are felt by students have not helped to be able to understand and practice again. Therefore we need social media-based learning media such as the use of educational videos. The aim of this study was to determine the effect of educational videos as a medium of learning on students' skills in therapeutic communication in mental disorders patients in undergraduate nursing program students. The research using quantitative methods with a quasy experimental design with a one group pre-test posttest design. The effectiveness of the treatment was assessed by comparing the pre-test and post-test scores. The sample in this study were all students in semester VI of the Undergraduate Nursing Program totaling 30 people used was total sampling. Collecting data used the observation sheet of the ability to perform therapeutic communication on the strategy for implementing the risk of violent behavior, compiled by Keliat et al. (2015). Data collection begins with the pre-test, intervention and post-test stages. Data analysis used the McNemar test with  $\alpha = 0.05$ . The results showed that the obtained p value was  $0.000 < \alpha (0.05)$ . This means that  $H_a$  is accepted, which means that there is an effect of providing educational videos on student skills in doing therapeutic communication. Thus there is an increase in the ability of students to carry out therapeutic communication after being given educational videos.

**Keyword: educational videos, learning media, undergraduate nursing**

**MORAL AND RELIGIOUS LEARNING INNOVATION THROUGH  
INFORMATION TECHNOLOGY (DESCRIPTIVE STUDY AT SD  
MUHAMMADIYAH MANYAR GRESIK)**

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**ABSTRACT**

The purpose of this study was to seek in-depth information about moral and religious learning innovations through information technology at SD Muhammadiyah Manyar. Through information technology learning planning, learning implementation, and learning evaluation will be easier, more practical, and faster. This type of research is descriptive research, the subject of research is the principal, vice principal in the field of curriculum, teachers, and the moral and religious learning process in schools. The research design: research planning → research implementation → research data analysis → drawing conclusions → making reports. Data collection techniques are through observation, interviews, and study of learning documents. All research data will be analyzed and the analysis model used is the Mils and Hubermen model. In this model, the analysis steps are: (1) data reduction, (2) data presentation, and (3) drawing conclusions / verification. There are three findings from the results of this study related to the use of IT in moral and religious learning at Muhammadiyah Elementary School Manyar: 1) in learning ethics, faith, and school worship utilizing learning videos, 2) utilizing video calls for the habit of praying for students at home, 3) use of murattal recordings to practice pronunciation and memorization of the Qur'an.

**Keywords: Learning innovation, information technology**

# CONTENT-BASED INSTRUCTION IN THE FLIPPED CLASSROOM TO ENHANCE EFL LEARNERS' INTERCULTURAL COMMUNICATIVE COMPETENCE

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## ABSTRACT

The use of educational technology has given rise to the flipped classroom in providing learners with opportunities for active learning and engaging with material inside and outside class. Many previous studies have reported students' satisfaction in using the flipped classroom for medical, math, and English courses; however, research on using flipped classroom to enhance learners' intercultural communicative competence (ICC) in the EFL classroom remains insufficient. Therefore, this paper studies a one-semester project in which learners developed their ICC skills through content-based instruction (CBI) in a flipped classroom setting. Twenty-six students in the English department of a private university in Indonesia participated in this study. Using qualitative data analysis, the results show that CBI and flipped classroom improved the participants' ICC significantly. These results could be valuable for those who wish to conduct similar research.

**Keyword:** content-based instruction, flipped classroom, intercultural communicative.

## **THE IMPACTS OF COVID-19 ON THE STUDENTS LEARNING BEHAVIOR**

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### **ABSTRACT**

The pandemic's unpredictable period affected students' adjustment to daily life, financial costs, burdens, and "new" learning. The researchers believe that those aspects relate each other. Indeed, this research is not simply to know the students' problem behavior in the "new" learning class, but it also discover things to reduce risks for academic failure. In addition, the researchers felt urgent to discuss about the impact of COVID-19 towards the university students' learning behavior in order to evaluate some aspects need to encounter by lecturers for successful "new" learning. This was designed as a descriptive quantitative research. The data were taken by using the Problem Behavior Questionnaire (PBQ) distributed to the students through Google Form. The subjects consisted of 21 students of Economic Education Department Study Program, Faculty of Pedagogy and Psychology, PGRI Wiranegara University. From the questionnaire, the researchers could understand how COVID-19 give impacts on the students in a relation to their sensory, control, and setting/environment. Furthermore, the researchers also evaluated how the students behave towards those counted parts. This research resulted the learning process at pandemic Covid-19 got harder than in the normal situation and it caused many problems in students' learning behavior. Hence, in order to make the students keep motivated, the lecturers need to give attention and motivation to decrease a negative behavior which also effect to their learning achievement.

**Keywords: behavior, learning, the impact of COVID 19, university students.**

# **THE ABILITY OF STUDENTS' JUNIOR HIGH SCHOOL SURAKARTA IN SOLVING PISA-LIKE MATHEMATICS PROBLEMS WITH CHANGE AND RELATIONSHIP CONTENT**

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## **ABSTRACT**

One of the achievements of national education goals is carried out through evaluation activities, including benchmarking the quality of education, particularly the ability of students in junior high school. One of the international level evaluation activities followed by Indonesia is the Programme for International Student Assessment (PISA). This study aims to describe students' abilities in solving PISA-like mathematical problems with change and relationship content as a step to prepare students for taking PISA in the city of Surakarta. This was descriptive research. Data collection techniques include test in the form of a PISA-like mathematical problems with change and relationship content and a non-test in the form of a questionnaire. The data analysis technique was carried out in three stages, namely reducing data, presenting data, and drawing conclusions. The results showed that the students' ability to solve PISA-like mathematical problems with change and relationship content was low because students did not understand the problems which resulted in a lack of creativity to manipulate real context problems into algebra expressions.

**Keywords: PISA-Like mathematical problem, change and relationship, ability of student**

**TEACHER INITIATED INTERACTION WITH AUTHENTIC MATERIALS  
AND STUDENTS' ENGAGEMENT IN SELF-INITIATED OUT OF CLASS  
ENGLISH LEARNING WITH TECHNOLOGY**

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**ABSTRACT**

The use of authentic materials (AMs) as the exposure in the classroom during teaching language learning process has been researched since a few decades. It showed that AMs contributed to increase students' English proficiency from some aspects. However, if at past, AMs was usually accessed and provided by the teacher in language learning in the classroom, as the growth of technology and internet, nowadays it can be accessed by students easily in and out of the classroom. It gave chance for the teacher to design the activities of language learning which engage students to have self-initiated learning out of classroom. This research tried to investigate the potential use of authentic material initiated by the teacher toward student's engagement in self-initiated English learning with technology out of classroom. By using case study on two teachers with 56 students of sixth grade of bilingual classes in primary school in East Java, the data was collected by observation, interview, questionnaire, and documents. The finding showed that the interaction initiated by the teacher with AMs dominated using short documentary and animation film with subtitle as language exposure and use tasks approach. The tasks motivated students to spend more time for learning, using more online resources for doing the assignment, and engaged students to have interaction using English as the mean of communication beyond the classroom with their peer. This study gave a usefulness for teacher in designing interaction using AMs to encourage students to learn English both in and out of classroom.

**Keywords: authentic material, self-initiated, language learning beyond the classroom**

# **COGNITION REGULATION OF 11TH GRADE STUDENT OF MAN 1 KOTA PALU ON MATHEMATICS PROBLEM SOLVING IN TERMS BY COGNITIVE STYLE**

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## **ABSTRACT**

This research is qualitative research which aims to describe the cognition regulation activity in solving linear program problems using Polya's steps in terms of cognitive style. The research subject were two female student, each one belonged to field dependent (FD) and field independent (FI). Data that were collected using written test and interviews shows that: (1) the FD subject was able to perform all Planning activities at each step of Polya, but there was difference in the implementation of the plan the plan when subject solved the problem, then subject could predict the time to solving problems even though in practice the subject takes longer, while the FI subject was able to perform all Planning activities at each step of Polya and carries out problem solving according to strategy that has been complited, thes the subject can predict the time needed to solve the problem correctly, (2) the FD subject was able to perform all Monitoring activities at each step of Polya if given a stimulus in the form of instructions to detect mistakes, while the FI subject was able to perform all Monitoring activities at each step of Polya independently, (3) both of subject was able to perform all Evaluation activities at each step of Polya by assesing the adequency of the information on the problem, assesing the correctness of the result of the investigation and making conclusions on solving the problem based on the result of the investigation that had been carried out.

**Keywords: cognition regulation, mathematics problem solving, cognitive style**

## **EVALUATION OF THE BAITUL ARQAM PROGRAM AT THE MUHAMMADIYAH REGIONAL LEADERSHIP SCHOOL OF MUHAMMADIYAH PALANGKARAYA CITY**

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### **ABSTRACT**

As an Islamic movement, da'wah ma'ruf nahi munkar and tajdid, Muhammadiyah has developed into a modern organization with a structure that is not simple and a large program of activities. The transformation of Muhammadiyah Organization values must be guaranteed to every citizen, whether at the level of leadership, cadres, members and even sympathizers. The form of cadre in the form of Baitul Arqam must be held at all levels in each region. This study generally aims to determine the effectiveness of the implementation of the Baitul Arqam program evaluation for teachers and employees in elementary and middle schools in the Muhammadiyah area of Palangka Raya City. In particular, this study aims to: 1) Know the analysis of needs, goals and objectives at the context stage. 2) Knowing the planning strategy which includes material, human resources, facilities and infrastructure, funds, and learning methods in the input stage 3) Knowing the implementation schedule and learning activities at the process stage 4) Knowing the competencies controlled by participants at the product stage. The approach used in this research is the CIPP evaluation model. The research subjects came from all elements involved in the Baitul Arqam program for Elementary and Middle School Employees in Central Kalimantan, namely: 1) Principal; 2) Teacher; and 3) Education Personnel. The techniques used in this research are interviews, observation, and documentation. Checking the validity of the data was also carried out by confirming the data to the Muhammadiyah Central Kalimantan Regional Leadership for Primary and Secondary Education. The results obtained from "Evaluation of the Baitul Arqam Program for Teachers and Employees in Elementary and Middle Schools in the Muhammadiyah area of Palangka Raya City" presented the findings of the evaluation results into four parts of the evaluation model, namely: context, input, process, and product (CIPP). The results of this study are as follows: (1) Analysis of the needs and goals and objectives of the program in the context component in the excellent category. (2) The strategy on the input aspect is included in the good category. (3) the implementation of activities in the process aspect is in the good category. (4) The product of the program is in the good category.

**Keywords: evaluation program, baitul arqam, secondary schools in Muhammadiyah area of Palangka Raya city**

## **DEVELOPMENT CONTENT AND METHOD OF MOBILE LEARNING FOR CIVIC EDUCATION SUBJECT**

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### **ABSTRACT**

Citizenship Education is one of the compulsory subjects in the Indonesian education system. Every student always studies this material from elementary to college level. Citizenship Education aims to make students know Indonesia and build a character of love for the country. However, the content and learning model from start to finish is almost identical; the teacher only gives lectures, so students are not interested and think this subject does not make a positive contribution to their future, even more so for medical students. Therefore, Civics education needs innovation to make it more attractive so that students feel they need it. If we pay attention to the content of Civic Education materials, then we choose topics from daily practices in hospitals and communities. We can make it more attractive if we use multimedia technology that is suitable for smartphones. The innovative approach with smartphones can solve this problem as students are familiar with this equipment. In this study, we developed an Android smartphone-based application to present interactive subject matter with topics according to educational backgrounds. This method is expected to be able to attract students to study independently at home. We also design this independent learning activity to remain under the supervision and guidance of the lecturers. We use technology so that students can study anywhere and study anytime, whether they have an internet connection or not. We raise topics related to hospitals. From this research, an interesting finding was found, where medical students began to be more willing to express their opinions about the value of truth in behaving and acting as medical servants. Most of the students seemed more interested in applications to sharpen their opinions. We conclude that this learning innovation is more interesting and capable of having a positive impact on medical students.

**Keywords: mobile learning, civil education, multimedia learning**

**ANALYTICAL THINKING PROFILE OF 10TH GRADE STUDENT OF MAN 1  
KOTA PALU IN SOLVING THE THREE VARIABLES LINEAR EQUATION  
SYSTEM PROBLEM THAT VIEWED BY THE INDEPENDENT FIELD  
COGNITIVE STYLE**

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**ABSTRACT**

This study aims to obtain a description of the student's analytical thinking profile with independent field cognitive style in solving three-variable linear equation system problems. The subjects of this study were 10th grade students of MAN 1 Kota Palu who have field independent cognitive style. Data collected by written test and interview methods. The results of this study indicate that the subject with the field independent cognitive style (AT) fulfills all indicators in analytical thinking, namely at the stage of differentiating AT can sort out the important and relevant parts of the problem, reveal what is known and asked about the questions. At the organizing stage, AT collects and rewrites what is known and asked in the questions, created mathematical models and able to predict the time that will be taken to solve the problems. At the stage of giving attributes, AT reconnects the obtained results with what is being asked in the questions, then reveals the obtained conclusions . that viewed by the field Independent cognitive style.

**Keywords: analytical thinking, variables linear equation, independent field cognitive style**

## **BLENDED LEARNING IN UNIVERSITY'S LECTURERS: IS IT TO FOSTER STUDENTS SENSE OF LOVE TOWARD THE COUNTRY?**

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### **ABSTRACT**

Globalization makes interactions between cultures occur without difficulty. Foreign culture easily influences local culture. This condition raises fears of fading a sense of love toward the country, especially among the younger generation. Many young people in Indonesia are more familiar with and even adopt foreign cultures than Indonesian cultures. This condition is a challenge for Indonesian education, especially character education. At the level of Indonesian higher education, character-building through the Civics Education course. The course aims to make students who have a sense of love toward the country. It is necessary to have an appropriate learning model, one of which is to use a blended learning model. This research intends to describe the Civic Education lectures in university by using blended learning to foster a sense of love toward the country among students. The method used in this study was qualitative using the interview technique—this study conducted at Bina Nusantara University. This study's findings stated that the use of blended learning in the Civics Education course was effective, active, flexible, independent, innovative, and attractive. The informant also stated that the Civic Education lectures using blended learning were able to foster a sense of love toward the country. Keyword: Blended Learning, Sense of Love Toward the Country.

**Keywords: blended learning, love toward the country, student's university**

# **ENRICHED VIRTUAL BLENDED LEARNING: A CASE OF WRITING CLASS IN JAKARTA**

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## **ABSTRACT**

Amid the Covid-19 pandemic, millions of classrooms throughout higher educational institutions in Indonesia have been transformed toward predominantly enriched virtual blended learning. The typical classrooms are characterized by a split of students learning process into face-to-face and online processes in a brick-and-mortar scheme. It is a course when the students join face-to-face learning sessions with their teacher and are free to complete the remaining coursework remotely. Therefore, online learning is the backbone of students learning as they finish the course remotely. Enriched virtual blended learning resembles a flipped classroom, but differs in a face-to-face meeting is not the main focus. At the same time it differs from full online learning because face-to-face learning sessions still occur (Horn & Staker, 2014). Even though some studies of blended learning have been conducted in EFL settings, studies of enriched virtual blended learning application in academic writing classes are still scarce. Thus, the aims of this study are to find the effectiveness of enriched virtual blended learning in teaching academic writing in EFL setting and to convey the students' perspectives towards the use of enriched virtual blended learning in academic writing classes.

**Keywords: english, writing, blended learning**

## **PERSONAL TOUGHNESS AS CHARACTER REQUIRED IN LEARNING IN THE AGE OF CHANGE**

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### **ABSTRACT**

The purpose of this paper is to show that distance learning motivates and inspires the students of SMP Tarakanita 1, Jakarta. Distance learning showed the enthusiasm of the students, with their active participation to ask, answer, and share experiences about their personal toughness as students. The conclusion of this research has several implications. First, the students to be more aware of the importance of personal toughness in carrying out their duties as students who still have a long way ahead to achieve their ideals. Second, the spirit of teachers in assisting students in the age of change massively affects the character development of students. Third, the totality of the parents of students to pay more attention to their children who still need parental assistance so they can have more personal toughness.

**Keywords: personal toughness, character, age of change**

## **NATIONALISM EDUCATION BASED ON INTERNATIONAL INDONESIAN SCHOOLS**

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### **ABSTRACT**

This article describes nationalism education based on international Indonesian schools in Saudi Arabia. National education is very important for the awareness of Indonesian citizens, especially among young people living abroad. With a background and environment far away from abroad. How the young generation maintains and develops a sense of nationalism through schools. Because it talks about nationalism education includes various aspects. There are several variables that will be discussed, including love for various cultures, the quality of the PKN curriculum, and efforts to foster a love for the country. This research uses a qualitative descriptive form with stages including two approaches, the intrinsic approach, the researcher lives in the environment of the cultural object that he wants to study and follows all the patterns of life in that tradition, so that it can be seen that the researcher is part of the culture, and extrinsic approach, namely the views and assessments of researchers from a neutral lens. The results show that instilling and developing a sense of nationalism is different from that in Indonesia. Identity factors and parental status play a positive role in nationalism education.

**Keywords: nasionalisme, education, Indonesian school, young generation**

## **STUDENTS MENTAL BEHAVIOR IN DISCOVERING AN IDEA BASED ON COGNITIVE STYLE AND GENDER**

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### **ABSTRACT**

The ability to generate ideas is a form of logical, critical, creative thinking and strategic thinking in deciding and implementing strategies. Cognitive style and gender are some of the characteristics possessed by each individual and contribute to the thought process. This qualitative research presents how students based on cognitive style and gender generate ideas. The research subjects were eleventh level students in the city of Makassar, namely field independent male student and field independent female student as well as field dependent male student and field dependent female student. The research instrument, namely the main instrument is the researcher herself and the auxiliary instruments are the GEFT (Group Embedded Figure Test) and Mathematics Ability Test, which is to select subjects with the same mathematical ability, namely high, as well as interview guidelines and the task of mathematical problems is to trace the process mental behavior of students to generate ideas. The results showed that field independent male student and field dependent male student through a process of reflection so as to generate ideas. Field independent male student was more independent to use previous knowledges and experiences compared to field dependent male student. Field independent female student and field dependent female student found ideas when provided explanations and justifications for their initial assumptions. Field independent female student was more logical than field dependent female student.

**Keywords: mental behavior, idea, cognitive style, gender**

**EFFECT OF ONLINE LEARNING EFFECTIVENESS AGAINST STUDENT  
ACHIEVEMENT MOTIVATION (CASE STUDY ON ONLINE LEARNING  
STUDENTS AT BINA NUSANTARA UNIVERSITY)**

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**ABSTRACT**

Online-based learning is currently quite a lot of public discussion. Many people are interested in attending lectures or online learning. Bina Nusantara University already has online learning programs from several majors and is located in several areas, such as Jakarta, Palembang, Semarang, and Malang. Research that measures online learning system effectiveness on online learning student achievement motivation (case study on online learning students at Bina Nusantara University). This study aimed to determine the effect of online learning systems' effectiveness and the achievement motivation of online learning students. The population in this study are active students at Bina Nusantara University. The research instrument consisted of 2 (two) questionnaires, namely the effectiveness of online learning and achievement motivation. The population of this research is online learning students at Bina Nusantara University. The outcome of this research is a positive relationship between learning effectiveness and achievement motivation; the higher the student is learning effectiveness, the achievement motivation increases, and vice versa, the lower the learning effectiveness, the achievement motivation will also decrease.

**Keywords: online learning, student achievement, motivation**

# **THE IMPLEMENTATION OF CRITICAL THINKING TECHNIQUE TO INCREASE READING ABILITY ON ENGLISH FOR FOREIGN LANGUAGE STUDENTS**

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## **ABSTRACT**

Reading is a process by which we understand a text, get information and store it in our brain. One survey conducted by the Central Bureau of Statistics in 2018, 91,68% of young people in Indonesia prefer to surf the internet and play games than doing reading activity. Teacher who teach reading in their class encountered several problems regarding to the students in understanding a text and correlate it to their background of knowledge. This study aims to determine of how to use the critical thinking as one of teaching technique in reading class to improve students' understanding in analyzing the text. This research was using quantitative method and took 28 students of Industrial engineering students in the second semester B class as sample and population. Data were taken from the result of pre-test and post-test and analyze using T-test technique. Hypothesis results obtained  $t = 4.396$  with  $p < 0,05$ , which means that there is a significant difference between the results of the pre-test and the post-test scores. The critical thinking technique has a significant effect on students' ability to analyze the text and filter the important information from the text. For English teacher and lecturer, this method can be applied in teaching reading and can be developed in another language skill.

**Keywords: critical thinking, reading ability, efl students**

**SELF DEVELOPMENT EDUCATION MODEL BASED ON PASSION POWER  
AND PERSISTENCE FOR THE MILLENNIAL GENERATIONS FACING  
DISRUPTION ERA 4.0 SOCIETY (CASE STUDY ON BINUS UNIVERSITY  
JAKARTA STUDENTS)**

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**ABSTRACT**

This study aims to contribute an alternative model of thinking about how to build the strength of Strive for Excellence, Persistence and Passion that is right in accordance with the spirit of BINUS VALUES for the personal lives of millennials generation students. The term Disruption Era 4.0 Society is increasingly being used by various mass media and social media in Indonesia. This term is commonly known as the 4.0 Industrial Revolution marked by the industrial movement into the digital era. The Industrial Revolution not only disrupted the field of digital technology but also raised the issue of Millennial Disruption. They have new values. To face competition in the era of disruption and during this pandemic, the need for the quality of youth resources needs to be improved through strengthening the Character Building Self Development education model which is expected to strengthen the understanding of Bina Nusantara University Values: Strive for Excellence and Perseverance. The research will be conducted using qualitative methods on 10 Binus students. We hope this research can help lecturers and educators in developing the quality of human resources for the millennial generation for the pandemic situation.

**Keywords: pandemic, disruption, millennials, persistence, perseverance, passion.**

# **DEVELOPMENT OF INTERACTIVE LEARNING MEDIA BASED ON ARTICULATE STORYLINE FOR MATHEMATICS SUBJECTS IN ELEMENTARY SCHOOLS**

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## **ABSTRACT**

The objective of this study is to develop interactive learning media for mathematics subjects. The population for this research was a fourth-grade student at Sang Timur Christian Elementary School with a sample of 31 students. This research design uses the 4D development model, which consists of identifying, designing, developing, and disseminating. Product validation was carried out by the teacher and three experts on content and learning, language, and media appearance. Based on the findings of the study, it can be concluded that the validity of the learning media is 92.8% (average score is 4.64). This value means that the learning media are in a good category. In addition, the percentage of practicality is 77.5% (average score of 3.88) with a very good category. In summary, the learning media developed can be inferred that they are very valid and practical for use in elementary schools. The drawback of this study is that the researcher does not assess the effectiveness of the product. The explanation is that researchers are limited to performing field trials during the Covid-19 pandemic.

**Keywords: interactive learning media, articulate storyline, elementary school, mathematics**

## **THE IMPROVEMENT OF UNDERSTANDING AND TOLERANCE ATTITUDE OF BINUS STUDENTS THROUGH CHARACTER EDUCATION**

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### **ABSTRACT**

This study aims to determine whether character education can improve the understanding and tolerant attitude of Binus University students and how the Binus University students implement the tolerant values in daily life. The methods used in this research are quantitative research methods with a type of correlational descriptive study. Primary data were collected through questionnaires and interviews with students who attended the Character Building Religion education. Secondary data was obtained from books, journals, magazines, newspapers, and others relevant to the research problem. Data analysis was conducted using content analysis, which explores the content or meaning of a book's symbolic message or other papers. The results showed the improvement of understanding and tolerant attitude of Binus University students after participating in the learning of religion character education. Similarly, the results also presented inter-religious relations in daily communication between the student and the better harmoniously intertwined.

**Keywords: tolerant, character education**

## STUDY OF INDEPENDENCE STUDENT'S ONLINE LEARNING DURING COVID-19 PANDEMIC

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### ABSTRACT

This research aims to describe the perceptions of independence online learning during Covid-19 Pandemic. This research was conducted at Junior High School 5 Tulungagung. Data collection techniques in this research were observation and questionnaire. The main instrument is researcher itself, the supporting instrument are observation notes and questionnaire sheets. The data validity uses in this research is extension of observation. Data analysis based on indicators of learning independence which include self-confidence, discipline, initiative, responsibility, and motivation. The result of this research indicate the self-confidence indicator, 28% students stated that they were always confident, 30% stated often, 20% stated sometimes, 13% stated rarely, and 9% stated never. In discipline indicator, 75% of students stated that they were always discipline, 3% stated sometimes, 1% stated rarely and never. In initiative attitude indicators, 35% students stated that they always had the initiative, 34% stated often, 22% stated sometimes, 3% stated rarely and the remaining 6% stated never. In responsibility attitude indicator, 51% students stated that they always had a responsibility, 25% stated often, 20% stated sometimes, 1% stated rarely and the remaining 3% stated never. In motivation indicators, 91% students stated that they always had a motivation and the remaining 9% stated often.

**Keywords: covid-19 pandemic, independence, online learning**

**AUTHENTIC LEARNING FRAMEWORK FOR HIGHER EDUCATION CASE  
STUDY OF ONLINE DISTANCE EDUCATION (ADJUSTMENTS TO THE  
CONDITIONS OF THE COVID-19 PANDEMIC)**

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**ABSTRACT**

The broad interest in online learning in higher education around the world brings a need for authentic learning, which is real-world oriented learning. In an effort to develop a distance learning curriculum that is able to support authentic learning in a formal education program and provide feedback to measure learning outcomes. This paper presents a draft authentic learning framework covering: Identification of Personal Skills in Bloom's Taxonomy, mapping Bloom's Taxonomy to Knowledge Domains, curriculum frameworks, design of authentic learning activities and design of content development and evaluation rubrics. The results of the study through the FGD discussion group forum which were attended by students, faculty members, instructional designers and industry practitioners concluded that the authentic learning framework is quite representative and can be applied in a distance learning system based on authentic learning.

**Keywords: authentic learning, curriculum, distance education, online learning, personalization learning**

## **THE EFFECT OF AUTHENTIC PROBLEM BASED LEARNING IN ENHANCING READING COMPREHENSION**

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### **ABSTRACT**

Limited background knowledge, lack of student motivation, limited vocabulary, and difficulties to comprehend materials are still problematic commonly for students' in reading comprehension. The purpose of this study is to enhance reading comprehension through authentic problem-based learning of VIII grade students in SMPN 1 Babat. A mixed method design is employed with quasi-experimental of pre-test and post-test group (32 students in experimental group and another 34 in control group), and a survey to check students readiness which are analyzed quantitatively. The researchers are working to employ authentic problem-based learning by allotting materials contextually to real situation such as journey/trip, holiday and travelling videos then let students discuss story from the text to solve problems unconsciously. An interview of the respondents is also employed to see opinion of students related to affective aspects. Results show that there is significant result of the increasing comprehension of the students ( $p$  is below 0.05). Data from questionnaire and interview also show that most of the respondents rocket motivation and interested in reading comprehension in which they are enthusiastic to learn fun, easy, and active in class. Usefull procedures of implementation as well as further recommendations are also provided in this study.

**Keywords: authentic problem based learning, reading comprehension**

# EVALUATION OF THE BAITUL ARQAM PROGRAM AT THE MUHAMMADIYAH REGIONAL LEADERSHIP SCHOOL OF MUHAMMADIYAH PALANGKARAYA CITY

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## ABSTRACT

This study generally aims to determine the effectiveness of the implementation of the Baitul Arqam program evaluation for teachers and employees in elementary and middle schools in the Muhammadiyah area of Palangka Raya City. In particular, this study aims to: 1) Know the analysis of needs, goals and objectives at the context stage. 2) Knowing the planning strategy which includes material, human resources, facilities and infrastructure, funds, and learning methods in the input stage 3) Knowing the implementation schedule and learning activities at the process stage 4) Knowing the competencies controlled by participants at the product stage. The approach used in this research is the CIPP evaluation model. The research subjects came from all elements involved in the Baitul Arqam program, namely: 1) Principal; 2) Teacher; and 3) Education Personnel. The techniques used in this research are interviews, observation, and documentation. Checking the validity of the data was also carried out by confirming the data to the Muhammadiyah Central Kalimantan Regional Leadership. The results of this study are as follows: (1) Analysis of the needs and goals and objectives of the program in the context component in the excellent category. (2) The strategy on the input aspect is included in the good category. (3) the implementation of activities in the process aspect is in the good category. (4) The product of the program is in the good category. The conclusion of this evaluation is the Baitul Arqam program for teachers and employees will continue with several improvements.

**Keywords: evaluation program, baitul arqam, secondary schools.**

## **LANGUAGE MAINTENANCE OF TANJUNG PINANG CHINESE STUDENTS AT BINA NUSANTARA UNIVERSITY**

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### **ABSTRACT**

This research was aimed to observe the language maintenance of Tanjung Pinang Chinese Students at Bina Nusantara University. It was a qualitative method by spreading questionnaires to 30 participants of Tanjung Pinang Chinese students at Binus University and doing face to face interview to 5 participants from the total of 30 participants. The research found that Tanjung Pinang Chinese Students at Binus University really value their vernacular and consider it as a cultural wealth that has to be preserved. Even though sometimes they have to shift their language when communicate with those who cannot speak it, it is not the reason for them to not maintain their vernacular. Frequent contact with family and homeland, and keep using the language in every chance are the effective ways to maintain the language. Through the findings, it can be learned that an incentive and willingness to maintain a language comes after the awareness to respect and value it.

**Keywords: language maintenance, chinese students.**

## **PRESUPPOSITION AND ENTAILMENT IN THE AMAZING WORLD OF GUMBALL SERIES BY MIC GRAVES**

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### **ABSTRACT**

The research analyses presupposition and entailment used in cartoon television series. The research uses qualitative method, using text analysis and observation on the three episodes of The Amazing World of Gumball. Data were taken from dialogs among the characters, identifying the use of the types of presupposition and entailment. Analysis was conducted on the types to find out the functions. The result showed that the three cartoon episodes have all the types of presupposition and types of entailment with various functions. Dominant function is creating the sense of humour and gain sympathy and compassion. Followed by other functions, such as an affirmation to disenchant something to someone and give a clear explanation. The distinction between presupposition and entailment in this research also can become a way to understand the meaning pragmatically and semantically.

**Keywords: presupposition, entailment, amazing world, gumball series, mic graves.**

**ABOVE WORD EQUIVALENCE AND STRATEGIES IN THE INDONESIAN DUBBED  
SERIES OF WE BARE BEARS**

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**ABSTRACT**

This study aimed to analyze the above word level translation strategies by Mona Baker that being applied, mostly used and its potential factors in 3 We Bare Bears episodes. The data was analyzed using qualitative method. Analysis was done by comparing the English script and Bahasa dubbing. From the analysis, there were 5 strategies found. First translation using idiom with same meaning and form (14 times), translation using idiom with similar meaning but dissimilar form (32 times), translation by paraphrase (47 times), translation by omission (1 times) and error (6 times). Translation by paraphrase was the most used strategy in this research.

**Keywords: word equivalence, Indonesian dubbed series, we bare bears.**

# **A CORPUS-BASED MODEL FOR SUCCESSFUL COMPUTER SCIENCE RESEARCH RHETORIC**

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## **ABSTRACT**

Many good research publications were not getting the attention of prospective readers due to a lack of structure and persuasive arguments. This paper investigated the rhetorical strategies to identify the generic structure and language features in successful research rhetoric. Research abstracts as representations of the research papers were used as corpus. A corpus-based study was conducted to identify the recurring patterns of lexical use and lexical structures in research rhetoric. The results showed information used in abstracts to contain an introduction to the issue followed by research purpose, methods, results, conclusion consecutively. Interestingly, sometimes abstracts directly started with the purpose of research and are followed by a discussion on the research topic. Some abstracts did not include a conclusion of the research. Certain lexical expressions were also used in presenting the thoughts and arguments of the authors. These recurring lexical items showed the common practice of research authors in Computer Science. Following the findings, a model of successful abstract was presented. Implications for further study were also discussed.

**Keywords: a corpus-based model, computer science, research rhetoric.**

## **RHETORICAL ANALYSIS OF STAND-UP COMEDY: A CASE STUDY OF INDONESIAN AND CANADIAN COMEDIANS**

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### **ABSTRACT**

This paper focuses on analysing the aspect of rhetoric between Women Overthink, Men Underthink, Russell Peters and Cowok Pasti Bohong, Tentang Cowok dan Cewek, Raditya Dika. The purpose of the analysis is to find the aspects of rhetoric are used by a script. This paper applies qualitative research and exposition methods, by analyzing, classifying and comparison the script using Robert and Warren's rhetorical theory and Greene's persuasion in stand-up comedy theory. Based on the findings of this research, it is concluded that style, Raditya Dika's and Russel Peters's script is irony tones to compare the habits and characters of men and women using informal as casual conversations with good friends. Diction, Raditya Dika's script is abstract then concrete and denotation meaning. Meanwhile, Russell Peters and Raditya Dika's scripts are specific, then an abstract and denotation meaning. Metaphor, Raditya Dika's script is Half-dead Metaphor. Meanwhile, the Russell Peters script is not finding a metaphor. The implication of this research is to introduce rhetorical analysis into stand-up comedy content.

**keywords: rhetorical analysis, stand-up comedy, canadian comedians.**

## **RHETORICAL MOVES AND GENRE ANALYSIS IN COMPUTER SCIENCE RESEARCH ARTICLE ABSTRACTS**

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### **ABSTRACT**

This study investigated the rhetorical moves in Computer Science journal articles. The purpose of this study was to reveal the construction in journal article abstracts. Data for this study was a corpus of 90 research article abstracts from reputable journals published between the years of 2017-2020. The results of this study revealed certain construction of abstracts in Computer Science. As a genre each rhetorical move also identified to have certain lexical use and pattern. In conclusion, this study revealed the building blocks of abstracts in Computer Science as a particular genre.

**keywords: rhetorical moves, genre analysis, computer science research.**

## MISCONCEPTION PROFILES OF SCIENCE ON ELEMENTARY SCHOOL TEACHERS

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### ABSTRACT

Primary school teachers have varied undergraduate educational backgrounds, both linear and non-linear with basic education science, but in reality in the field, it requires a classroom teacher to deliver almost all subjects in elementary school. A teacher who experiences misconceptions will transmit misconceptions to students, therefore elementary school teachers must avoid misconceptions. Science subjects in elementary schools are an integration of the content of the disciplines of biology, physics, chemistry and astronomy which are prone to misconceptions. This research was conducted to detect the occurrence of science misconceptions in elementary school teachers through qualitative descriptive research. The method of identifying misconceptions that will be used is the CRI (Certainty of Response Index) method, which is a model of true and false statements accompanied by reasons and levels of confidence in answering questions and supported by interviews. The results showed that the three subjects experienced misconceptions with a level of 50%, 62.5% and 62.5%, having a tendency to misconceptions about science that came from the literature used as a learning resource as well as personal perceptions of unconfirmed science. The results of the research are expected to be the basis for developing learning resources needed at the basic education level, developing programs for strengthening mastery of science concepts for teachers.

**Keywords: misconceptions, CRI (Certainty of Response Index)**

**MORAL AND RELIGIOUS LEARNING INNOVATION THROUGH INFORMATION  
TECHNOLOGY  
(DESCRIPTIVE STUDY AT SD MUHAMMADIYAH MANYAR GRESIK)**

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**ABSTRACT**

The purpose of this study was to seek in-depth information about moral and religious learning innovations through information technology at SD Muhammadiyah Manyar. Through information technology learning planning, learning implementation, and learning evaluation will be easier, more practical, and faster. This type of research is descriptive research, the subject of research is the principal, vice principal in the field of curriculum, teachers, and the moral and religious learning process in schools. The research design: research planning → research implementation → research data analysis → drawing conclusions → making reports. Data collection techniques are through observation, interviews, and study of learning documents. All research data will be analyzed and the analysis model used is the Mils and Hubermen model. In this model, the analysis steps are: (1) data reduction, (2) data presentation, and (3) drawing conclusions / verification. There are three findings from the results of this study related to the use of IT in moral and religious learning at Muhammadiyah Elementary School Manyar: 1) in learning ethics, faith, and school worship utilizing learning videos, 2) utilizing video calls for the habit of praying for students at home, 3) use of murattal recordings to practice pronunciation and memorization of the Qur'an.

**Keywords:** learning innovation, information technology

## **BUILDING STUDENTS' MOTIVATION AND ABILITY IN SPEAKING ENGLISH: THE USE OF COOPERATIVE-INSTRUCTIONAL VIDEO**

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### **ABSTRACT**

Low learning motivation of senior high school students caused by several things including: learning methods that do not adjust with the times and the media does not encourage students to be interested in learning. This study attempted to answer those problems by applying the method of cooperative learning which make students actively interact and communicate with their group and using instructional video which does not make them bored in learning, so they feel interested and motivated. Most of the previous studies only focus on the impact of using the cooperative strategy or instructional video by choosing one of them on teaching learning process to increase student's ability in certain skill. But in this study, it was used the combination between them in teaching learning process. Since the study was quasi-experimental, the instruments to collect the data were test and questionnaire. The researcher took two classes as experimental class and control class of twelfth grade students at SMAN 5 Tuban. The motivation questionnaire using four-point Likert-type scale. Items on the scale are anchored at 1=strongly disagree, 2=disagree, 3=agree and 4=strongly agree. The result of questionnaire proved that the students are motivated in learning speaking when using cooperative-instructional video than conventional method. The result of T-test indicates that English learning students on speaking skill taught by using the cooperative-instructional video was better than using conventional method (textbook). This has implication for language teachers who are interested in incorporating technology into their classes, which may contain students with low motivation and speaking ability.

**Keywords: students' motivation in speaking, cooperative learning, instructional video.**

# **WOMEN LANGUAGE IN THE GAME NARRATIVES: A CASE STUDY OF CHARACTERS REPRESENTATION IN STREET FIGHTER GAMES**

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## **ABSTRACT**

The representation of characters through narrative has been utilized in many video games. However, to dispense a meaningful story to the players, the characters must be created incomparably. One of the ways to do the characterization is by applying stereotype in a positive way such as attaching women language features to the female characters. Considering the fact, this study aims to find the type and the function of women language features in a fighting game entitled “Street Fighter”. Analyzing the data by applying the qualitative approach, the researchers found that the female characters use hyperbole adjectives, intensifiers, hedges soft euphemism, and tag question. Those features are employed to provide polite utterance, to emphasize their expressions, and to avoid rude expressions. Applying the language features to the female characters helps the players to attain a meaningful story of the fighting game.

**Keywords:** characters’ representation, stereotypes, fighting game, narrative, women language.

## **A CASE STUDY ON INDONESIA EFL LEARNERS ACQUISITION OF INFLECTIONAL MORPHEME –S IN THE THIRD PERSON SINGULAR PRESENT**

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### **ABSTRACT**

Inflectional morpheme – s in the third person singular present becomes one of the most problematic morphemes that the L2 learners encounter while learning English. In spite of this fact, learners continued learning this bound morpheme in the initial phases of learning English no matter what their mother tongue is. The current investigation examined the factors, whether mother tongue interference or overgeneration, that Indonesia EFL learners encounter while acquiring the bound morpheme – s in the third person singular present. The participants were 30 Indonesia – speaking seventh grade middle school students who aged 12 and 13 years old. They comprised of 15 males and 15 females and have been studying at public school, SMPN 1 Galis – Pamekasan. Two instruments were used in this investigation, which were written and spoken outputs of the students in the form of presentation tasks. Pedagogical activities were prepared cautiously to guide the students to utilize every single personal pronoun. Spoken part of the activities was documented electronically and all occurrences of incorrect use of third person singular present morpheme – s calculated and so did written activities. The results suggest that the errors performed by students were largely by virtue of mother tongue interference and overgeneration was not much observed.

**Keywords: morpheme acquisition, mother tongue interference, third person singular present morpheme – s**

# **PERCEPTION ON COLLABORATIVE WRITING, SELF-EFFICACY AND WRITING ACHIEVEMENT IN INFORMATION TECHNOLOGY ERA: A CORRELATIONAL STUDY**

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## **ABSTRACT**

This mix method study investigated the correlation among students' perception on collaborative writing (SPoCW), students' self-efficacy (SSE) and students' writing achievement (SWA). The quantitative data of the study was gained from 62 students who have been taught using collaborative writing during one semester. The data included the students' perception on collaborative writing questionnaire adapted from [1]. The questionnaire consisted of 18 statements with a five Likert scales. The reliability is 0.892. While students' self-efficacy is measured using self efficacy questionnaire consists of 23 statements adopted from [2] with the reliability is 0.80. Using correlation Pearson Product Moment, It was found that SPoCW correlated with SSE and the score is 0.377. To investigate the correlation between independent variable (SPoCW and SSE) and dependent variable (SWA), the researcher used Analysis Model Summary, it showed that R Square value is 0.394. This mean that the effect of SPoCW and SSE toward students writing achievement is 39.4 % and the rest is influenced by another factor. While to get qualitative data, semi structure interview was randomly given to the students and it was revealed that mostly students felt confident and had a new writing experience with collaborative writing which strengthen the investigation. It is recommended to build good students' perception and self-efficacy for best writing achievement.

**Keywords: perception, collaborative writing, self-efficacy, writing achievement.**

# **THE EFFECT OF CLASSCRAFT ON ENHANCING GRAMMAR PERFORMANCE OF ADULT LEARNERS**

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## **ABSTARCT**

This study aims to investigate the effect of Classcraft on enhancing grammar performance of adult learners. A quasi-experimental study employed involved 27 adult learners from graduate and postgraduate program. The participants were from beginner level and divided into Control Group (14 learners) and Treatment Group (13 learners). Data collection instruments were pre-test and post-test scores and a questionnaire. The result of Independent T-test revealed that there was statistically significance difference on the post-test scores between the Control Group and Treatment Group at significance level of 0.05 indicating that the implementation of Classcraft improved grammar performance of adult learners. The findings propose that a learning process that gives adult learners a sense of competitiveness, autonomy, recognition, competence, and relatedness can enhance adult learners' learning performance. The result of the questionnaire showed that overall, adult learners have positive attitude towards the implementation of Classcraft in the class. Future studies could be conducted by combining different gamification platforms into one course to maintain an element of surprises or by applying the gamification across different level of proficiency.

**Keywords: grammar performance, adult learners, gamification, classcraft**

## **ENGLISH FOR GENERAL ACADEMIC PURPOSES (EGAP) OF MIDWIFERY: ITS NEEDS AND READINESS IN ONLINE AGE**

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### **ABSTARCT**

There are two guiding questions in this study, namely 1) which would be accurate of EAP tendencies, general or specific, productive, or receptive skills? 2) How is the readiness of the EAP program in implementing online technology? This study aims to reveal the exact needs of this practical discipline and its readiness in operating online learning technology. Using a mixed method strategy, this research employs questionnaires involving 45 respondents (who will join) and 30 students (who have finished participating) and interviews with four lecturers in the Midwifery study program. The results show that EAP for general purposes turns out to be more dominant because students trusted to be able to communicate with patients and medical staff in hospitals and to disseminate knowledge among associations in the form of seminars and writing scientific articles, thus combine the need for study and career success. Productive ability is somewhat more prevailing than receptive ability within the configuration of speaking, reading, writing, and listening skills. Furthermore, the readiness of the EAP program in midwifery is only 52% on average, meaning that special efforts are needed to implement online technology in order to make the program a success. This research concludes that students' vocational abilities require EGAP needs with a combination of productive English skills as priority. The use of online technology still needs to be improved, especially in determining platform, types of learning activities, and the availability of online exercises.

**Keywords: english for general academic purposes, midwifery, online age.**

## **SURFING THE MYSTERY OF J. C. DAWN'S RIPPLE OF EXISTENCE: A STYLISTIC STUDY**

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### **ABSTRACT**

Existentialism is not a new concept to poets. As part of philosophical theory, existentialism is a concept built upon an understanding that human search for their own meaning in life, thus strive to make rational decisions in response to the world's phenomena. Generally philosophical, poets often ponder and write about their existentialism questions and thoughts into poems. Many of these existentialism themed poems, like those of Emily Dickinson, received favourable responses from the readers as they share the same existentialism questions and wonders with Emily. This paper presents an analysis of 11 poems from Mystery of Existence chapter in the Ripple of Existence book by J. C. Dawn, an Indonesian rising star poet who published her poems in English. The analysis was done in six stylistic levels of analysis: phonological, graphological, morphological, lexical, syntactic, and semantic levels. As the result of the analysis, the 11 poems rendered existentialism messages whose themes were reinforced by the styles of the language used.

**Keywords: surfing the mystery, dawn's ripple of existence, a stylistic study.**

## **REVEALING THE CONCEPT OF LIFE AND DEATH IN ANCIENT ORAL DISCOURSE OF INDONESIAN INDIGENOUS TRIBE: A CONCEPTUAL METAPHOR ANALYSIS**

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### **ABSTRACT**

This research aims to reveal the concept of life and death found in the ancient oral discourse of one of the Indonesian indigenous tribe which is known as Pasang ri Kajang by employing the conceptual metaphor analysis (CMA) and the conceptual metaphor theory (CMT). This research is a qualitative research which uses several techniques of data collection such as semi – structured interviews, field notes, recording, and note taking. In analysing the data, this research administered conceptual metaphor techniques of data analysis which adopted the three stages mentioned in CMA namely data identification, data interpretation, and data explanation. The present results reveal that simplicity (kamase – masea) is a life style or cultural behaviours undertaken by Kajang people in carrying out their life in humble ways. This is the way of Kajang people apply their ancestors' ideology to live in simplicity or humble way. This research also reveals that Kajang people engages rituals daily. For them, rituals are inseparably related to everyday life, and they have their own system of categorization for rituals. Moreover, it reveals that death is described as a journey that only a good death (good soul) will travel to the hereafter, since they believe only good soul will be rewarded with eternal life (Karakkang) and extraordinary wealth (Kalumannyang kaluppepeang) in hereafter (ahera). The research concludes the conceptualization of life and death as found in Pasang ri Kajang are LIFE IS KAMASE – MASEA, LIFE IS RITUALS and DEATH IS A JOURNEY.

**Key Words: pasangri kajang, conceptual metaphor, conceptual metaphor analysis.**

## **THE SIGNIFICANCE OF BOOK SELECTION: AN EFL PARENT’S CRITERIA FOR SELECTING ENGLISH STORY BOOKS**

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### **ABSTRACT**

There has been an increasing awareness on the importance of home literacy practices Indonesian societies. Reading and literacy events such as “21 Hari Seru Membaca Nyaring” was the manifestation of this increasing awareness. Despite the numerous efforts initiated by local communities to promote enthusiasm in reading and reading aloud, only a few pays attention on the significance of book selection process. Book selection is the process of selecting books to read. For young children, it is mostly done the caregivers. Book selection process involves both cognitive and sociocultural considerations that are interesting to examine. As part of a larger ethnographic study of home literacy practices, we would like to share some fragments of our data that focus on the process of book selection done by the adult participant of the study. During the process, the adult participant who happened to be an English teacher, considered content, visual features, readability, and story length for the books that they selected, in addition to the cultural considerations. Based on the analysis of the interactions, we suggest some practical implications on book selection process for home parent – children reading practices.

**Keywords: book selection, EFL parent’s criteria, english story books.**

## **IN THE LOOP OF MEANING MAKING: EXPLORING THE IMPACTS OF DRAMA STRATEGIES TO STUDENTS' READING COMPREHENSION**

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### **ABSTRACT**

This article presents a case of two students who worked individually and collaboratively by using two drama strategies for providing in depth meaning making after reading. The case study was part of a one-year study that investigated the integration of educational drama strategies in an Islamic school in United States. Drawing upon transactional theory of reading, research about educational drama, and strategic actions of text processing of reading, observations and personal interviews were the methods used to explain participants' actions and thinking strategies as they were reading a novel and preparing for a dramatic performance. Through discourse analysis of the interactions, the participants evidently shared some similar range of strategic actions like inquiring for more information, making connections, and responding to the classroom literature when individually read the texts, differing only in their text productions and styles of performance. Nevertheless, situated by their roles and the objectives of the dramatic performance, both students performed different strategic actions, such as thinking within, about, and beyond texts, while working together to create a dramatic performance. Though the study took place in English speaking country, this study could shed a light on teaching reading comprehension in ESL/EFL contexts.

**Keywords: meaning making, drama strategies, reading comprehension.**

# **HOW COMPLEX ARE INDONESIA'S SENIOR HIGH SCHOOL TEXTBOOKS? A VIEW FOR COLLEGE READINESS**

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## **ABSTRACT**

In some Indonesia's higher education, English language has been used as elective language of instruction. The textbooks read at this level of education are mainly written in English too. Thus, the skills to speak and read in English fluently are two very important skills at this level. With the focus on content's density, it is reasonable if textbooks at university level are more challenging than textbooks at high school level. To get students ready for a more challenging college reading, it is important for high school students to be introduced to texts of various complexity. This paper reports the analysis of English textbooks for grades ten to twelve to find a range of complexities that would support students' readiness for college. The textual analysis was mostly done qualitatively by using qualitative measure of text complexity that include analysis of texts purpose, reader background knowledge, text structure, and many more. This research found that there was only small incremental complexity throughout the texts and textbooks by grade progression. We found that the reading texts were lack in challenges and were insufficient to help students prepare for college level reading.

**Keywords: senior high school, textbooks, college readiness.**

# **THE PRACTICES OF DIGITAL LITERACY IN LANGUAGE PEDAGOGY: BLENDED LEARNING/FLIPPED CLASSROOM ON ENGLISH LANGUAGE TEACHING IN INDONESIA**

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## **ABSTRACT**

This article aims to describe how English teachers develop and implement the practices of digital literacy to improve the achievement of English pedagogy through blended learning/flipped classroom. Developing and implementing the practices of digital literacy in language pedagogy through blended learning/flipped classroom can enhance the achievement of learning English gradually and continuously. English teachers play important roles in language pedagogy to gain the achievement of learning English. If English teachers are literate digitally, they can manage and facilitate their learners to improve the achievement of learning English through blended learning/flipped classroom. Observation sheets and field notes were used to find out the data. The subjects are English learners who have learned English in Surabaya 2019. The research results showed that developing and implementing the practices of digital literacy in language pedagogy can improve the achievement of learning English. Three factors contribute the advantages of digital technology are easier to access learning resources/materials, various learning resources/materials are available, and learning resources/materials are updated. Therefore, English language learning and teaching are more interesting and challenging. At last, the practices of digital literacy in language pedagogy play a crucial role in improving the achievement of learning English in Indonesia.

**Keywords: blended learning/flipped classroom, digital literacy, and English pedagogy.**

## **LEARNING A FOREIGN LANGUAGE DURING A PANDEMIC: DEVELOPING PODCAST FOR LISTENING SKILL OF BEGINNER-LEVEL BIPA LEARNERS**

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### **ABSTRACT**

In a digital era, the process of learning is no longer limited to space and time. In recent educational technology, Podcast serves as a useful alternative since it can be used for learning of a language digitally and independently. Accordingly, the Indonesian language is currently one of the languages widely studied by international students, known as Indonesian Language for Foreign Speakers (henceforth, it is referred to as BIPA). The dissemination of the Indonesian language to develop, foster, and improve it internationally is stated in the XI Indonesian Language Congress in 2018. This research aimed to develop a listening learning-media for BIPA at beginner-level based on the Ministry of Education and Culture curriculum. This research was conducted to assist BIPA learners in more flexible learning. Amid the Covid-19 pandemic, all learners have to study at home. Therefore, developing Podcast as an independent-learning media is a solution to overcome this problem. It is useful because learners can access the materials anywhere and anytime. The podcast development method adopted and modified Borg & Gall's R&D cycle. There were five steps involved in the process: (1) Need analysis, (2) Product Development, (3) Expert Validation, and (4) Product Revision, and (5) Final product prototype. The podcast featured fifteen sub-topics related to the following topics: surrounding environment, daily activities, and important places; the topics were adjusted to the beginner-level of BIPA graduate competency standards from the Ministry of Education and Culture. After going through a series of development cycles, testing, and revision, the BIPA podcast is ready for beginner-level learners.

**Keywords: Beginner-level, BIPA, Independent learning, Listening skill, Podcast**

## **CHEMICAL ENGINEERING**

### **THE EFFECT OF OVEN TIME ON PHYSICAL CHARACTERISTICS OF COOKIES FROM COMPOSITE FLOUR (RICE BRAN, MOCAF, CORN)**

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#### **ABSTRACT**

Cookies are one of nutritious food preparations made from wheat flour. As the need for wheat flour increases, alternative flour substitutes for wheat flour are needed, for example composite flour such as rice bran, mocaf, corn. The use of composite flour in manufacture of cookies can improve nutritional value of product. This research aims to make cookies products with composite flour substitution, to know the physical characteristics of the spread factors, and to know the proximate levels. The research method is in two stages: the first stage is making of cookies with all-in method with variations in time of oven 10,13,15,17, 20 minutes on the physical analysis of spread factors. While the second stage is the proximate test (protein, fat, carbohydrate, moisture content, ash content) from the best oven time. The results showed that the spread factor was strongly influenced by the oven time. The best spread factor of 40.44 resulted in a more nutritious and healthier product at 20 minutes of oven time. Provide information on the utilization of composite flour (rice bran flour- mocaf flour- corn flour), Increase the added value of (rice bran, mocaf, and corn), Increase the nutritional content of cookies.

**Keywords: cookies, spread factor, proximate content, composite flour**

## SOIL CHEMICAL AND PHYSICAL PROPERTIES UNDER VARIOUS TYPES OF LAND USE

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### ABSTRACT

This study was aimed to study the effects of land use systems types on soil chemical and physical characteristics. A number of soil samples were collected from 3 (three) research sites, coffee multistrata, rice field, and dry land. Each samples were taken from 3 (three) depths, i.e. (0-10 cm), (10-20 cm), and (20-30 cm). Soil physicochemical properties (pH, redox potential, organic-C, N-mineralization, soil bulk density, permeability, and soil pore) were determined using standard physicochemical techniques. The results shows that land use type affects the soil characteristics. The textured of soil sites were categorized as silty clay loam on coffee plants and on dry land; whereas on rice field the textured were loamy-clayly. Soil bulk density was not significantly different on all of research sites, but the soil N-mineralized (NH<sub>4</sub><sup>+</sup> and NO<sub>3</sub><sup>-</sup>) and soil N-NH<sub>4</sub><sup>+</sup> were higher on coffee plant; and the lowest were found on dry land. The organic matter content on coffee plant and rice field were not significantly different, but it was different significantly with dry land due to the organic matter input on both of the sites, coffee plant and rice field. Land use types seems has a detrimental effects on soil-physical properties due to changes on soil organic matter input.

**Keywords: land use, soil bulk density, soil N-mineralization**

# **THE INFLUENCE OF COAGULANT $Al_2SO_4$ AND PAC (POLY ALUMINIUM CHLORIDE) TOWARD LEACHATE WATER QUALITY TPA CILOWONG BASED ENVIRONMENTAL STANDARD**

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## **ABSTRACT**

Currently, the management and management of waste and garbage that is not good, it was a serious problem faced by almost all over the world and especially in Indonesia. Garbage production in Serang City reached 360 tons / day. The huge amount of garbage in TPAS has resulted in the natural decomposition process taking place on a large scale as well. In the decomposition process, it will convert the garbage into organic fertilizer and cause a product, namely leachate water. The problem in this research is how the effectiveness of the coagulation method with the coagulant  $Al_2SO_4$  and PAC can reduce the levels of COD, BOD, TSS, and reduce the pH value in leachate with various dosage, as well as processing time so that leachate is not dangerous when disposed of into the environment. Analysis of the research parameters were BOD, COD, TSS, and pH, both before and after processing, based on the dosage of each coagulant and processing time. The research methodology used ANOVA analysis. the research results, it was found that the effective coagulant was PAC with a dosage of 5 gr, and stirring time of 30 minutes, 1 hour of deposition time, was able to reduce leachate in accordance with environmental quality standards whereas based on ANOVA analysis there was no effect of dosage on the reduction of leachate water.

**Keywords:  $Al_2SO_4$ , dosage, coagulant, leachate, PAC**

## **DEPROTEINATION PROCESS ON THE CHITIN ISOLATION FROM PLACUNA PLACENTA SHELLS**

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### **ABSTRACT**

Gresik is an area with abundant marine potential. One of them is clams which are now causing problems because the shells become waste that accumulates after the meat is taken for consumption. The shells, especially from placuna placenta, have potential to be further processed because the shells contain 14 - 35% chitin. Chitin is the main component of making chitosan that has many functions. One of them is used for fish preservation so that it does not rot easily. The 3 steps required to isolate chitin from shellfish are deproteination, demineralization, and deacetylation. This study focused on deproteination which aims to reduce the protein content in chitin. Kjeldahl method is used in this experiment to determine the protein content in the sample. Before the shell was crushed, it was washed using clean water, then rinsed using aquadest and dried using the oven. Afterward, the shell was crushed and sieved to obtain a size of 200 mesh then carried out the homogeneity test. If the sample was homogeneous, dissolved the shell powder in NaOH with the ratio of shell powder: NaOH = 1: 10 (w/v). Stirring was carried out for 120 minutes at a certain temperature. The concentration of NaOH variations used were 5 M, 10 M, 15 M, and 20 M and temperature variations used in the process deproteination were 500C, 1000C, and 1500C. Sampling was carried out at certain time intervals. Preliminary research showed that the protein content in the fresh shell sample was 14.68%.

**Keywords: deproteination, chitin isolation**

# **KINETICS OF CHLORIDE ADSORPTION ONTO ACTIVATED CARBON**

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## **ABSTRACT**

Well water in Kemudi Village has found containing high concentration of chloride. One methode to remove chloride from brackish water was adsorption using activated carbon. Carbon with particle size of 60 mesh was treated for 30 minutes at 400°C. This research focused on the searching for kinetics of chloride adsorption onto activated carbon. Adsorption kinetics could describe the rate of removal chloride from brackish water. The batch sorption experiment was carried out in 700 ml stirred glass contained 20 gr adsorbent at operation temperature 30°C, 40°C and 50°C. From this research, the kinetics models of chloride removal mechanism fitted well of the pseudo second-order kinetics model.

**Keyword: Activated Carbon, Adsorption, Chloride, Kinetics**

# UTILIZATION OF RED DRAGON FRUIT EXTRACT ON THE DYE SENSITIZED SOLAR CELL (DSSC) APPLICATION WITH THE TOUCHSCREEN CAPACITIVE LAYER

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## ABSTRACT

The development of development and technology greatly affects the demand for electricity. Dye Sensitized Solar Cell (DSSC) is a solution to the problem of meeting electricity needs. Research in this field has been carried out with various developments. One of the developments that has been done is the use of natural dyes (dye) and the use of a capacitive touchscreen layer. In the capacitive touchscreen layer, there is an ITO layer which can continue the flow of electricity. Replacing the ITO substrate with a capacitive touchscreen layer is quite promising, in addition to being economical, the resulting efficiency reaches 0.8596%. This research will use red dragon fruit extract which is currently being cultivated as a dye base and capacitive touchscreen coating at an economical price as a DSSC substrate. Red dragon fruit extraction uses the maceration method with distilled water and the addition of citric acid, while for TiO<sub>2</sub> deposition, the slip casting method is used which is the easiest and cheapest method compared to other methods in TiO<sub>2</sub> deposition. The results showed that the red dragon fruit extract was positive for anthocyanins as seen from the results of observations on the phytochemical screening test, UV-Vis spectrophotometer and FTIR. The characterization of TiO<sub>2</sub> deposition used SEM and XRD tests which showed the size of TiO<sub>2</sub> particles and the distribution of anthocyanins in the TiO<sub>2</sub> layer. The efficiency resulting from the use of dragon fruit extract and the capacitive touchscreen layer is 0.985%.

**Keywords: DSSC, dragon fruit, anthocyanins, capacitive touchscreen, dye**

## **FLUORIDE ADSORPTION USING SLAG NICKEL**

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### **ABSTRACT**

Drinking water which contain high concentration of fluoride can be harmful to teeth and bones. Nickel slag was cleaned from its impurities then mashed and sieved with size 100-200 mesh. This research focused on the search for process conditions for adsorbing fluoride dissolved in water bodies using nickel slag. The batch sorption experiment was carried out in 50 ml stirred glass contained 12.17 mg/L fluoride solution at operation temperature 25oC, 35oC and 45oC, pH of 4, with 0.75 gr, 1 gr, and 1.25 gr of adsorbent weight. The solution samples were analysed by using visible spectrophotometer at 570 nm of the wavelength. From this research, the amount of fluoride adsorbed by the adsorbent fluctuated with time, which indicated that the bond between the fluoride ion and the adsorbent was physisorption (have a weak bond). The amount fluoride adsorbed was less than 18%.

**Keywords: Adsorption, Fluoride, Nickel Slag**

## INFORMATIC ENGINEERING

### DIGITAL FORENSIC READINESS INDEX MATURITY FOR UNIVERSITY AS CYBER ATTACKS PREPAREDNESS DURING THE COVID-19 PANDEMIC

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#### ABSTRACT

The penetration of communication devices and the internet uses in Indonesia, in 2020 has increased compared to 2019. This incident was added presence of Work from Home (WFH) and Study from Home (SFH) during the Covid-19 Pandemic. The high use computers and internet will also lead to high cybercrime. One of the potential for this cyber-attack will be felt by universities, especially in the Central Java region. So that the need for university readiness in facing cyber-attacks. Maturity level is very important to support the post-incident process and reporting to the authority's event of an attack. The Digital Forensic Readiness Index or DiFRI is a scale used to measure the readiness of university in dealing with cyber-attacks. In the Digital Forensic Readiness Index there are criteria for Strategy, Policy & Procedure, Technology & Security, Digital Forensic Response, Control & Risk and Legality. Where each has its own indicator. Meanwhile, to determine the level of maturity, a cybersecurity scale can be used with four levels, namely Passive, Reactive, Proactive and Progressive. In the Central Java region university institutions have an average value scale of 2.18. When assessed on the Digital Forensic Readiness Index scale, it will be included in the Not Ready scale in facing cyber-attacks and post-incident. With this value, the maturity level is included in the Passive category. Where only comply with normal standards and do not prioritize cybercrime risk management policy procedures.

**Keyword: digital forensic readiness index, cybersecurity readiness, digital forensic, cybersecurity maturity**

# GAME ARCHITECTURE “BINUS LIFE” FOR NEW STUDENT ORIENTATION

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## ABSTRACT

The increasing positive cases of Covid-19 have quite significant impact on the almost all sector in Indonesia including education. The Indonesian government is now preparing a way to live side by side with the COVID-19 outbreak through less contact activity (LCA) or minimizing contact activity which can be interpreted as activity without contact or face-to-face contact, but by using digital communication equipment or what we often refer to as online activities. The government through Ministry of Education and Culture requires that the implementation of new student orientation or what is commonly known as “ospek” will be held through online. So, digital communication has minimal direct contact, which will shape the digital education ecosystem which makes the education relatively productive during the pandemic. Graphical User Interface design is one of the most important issues in development of mobile apps. The major problem in the interface design mostly caused by unique feature of mobile device. This is quite challenging for designer how to present clear user interface on a limited screen without overload. Based on design thinking method, this paper proposes a practical interface design for “Binus Life” game chapter. The Semantic Differential method was used to understand the impression captured by respondents on the GUI design of “Binus Life” game. This research should be done to gain students awareness of campus life during pandemic. Hopefully, this research can be used as a reference to produce mobile apps to support first year program in universities.

**Keyword: graphical user interface, game chapter, student’s orientation**

# ARCHITECTURE DESIGN OF CULINARY APPS

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## ABSTRACT

The pandemic Covid-19 have quite significant impact on the Indonesia economy especially for Small and Medium Enterprises (SME's). Regarding the thematic efforts for economic recovery after the implementation of the new normal protocol, the adaptation process in people's economic activities known as the Less Contact Economy (LCE) which can be interpreted as economic activity without contact, but by using digital communication equipment, such as the using of mobile apps. East Java Province holds considerable tourism potential to be developed especially in the field of culinary tourism. To increase public awareness of culinary tourism, an interesting media is needed to be develop to provide complete information related to the tourist destination. The specific target in this study is to create a GUI (Graphical User Interface) design for mobile apps "Langlang" on smartphones that aims to increase public awareness about the diversity of culinary tourism in East Java. Based on design thinking, this paper proposes a practical interface design for mobile apps design based on e-commerce "Langlang" which provide informations about culinary. The Semantic Differential method was used to understand the impression captured by respondents on the GUI design of "Langlang" application. This research is very important to help industry to marketing and distributing thier products through mobile apps during pandemic. Hopefully, this research can be used as a reference to published mobile apps to support less contact economy in order to makes the economy relatively productive during the pandemic.

**Keyword: graphical user interface, culinary, mobile apps**

## **EAP DESIGN IN CRUDE PALM OIL INDUSTRY USING TOGAF**

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### **ABSTRACT**

The CPO industry is a limited liability company engaged in the sale and processing of palm oil. The process of improving the quality of oil palm sales and processing services and employee performance, requires a technology and information system that can assist in this process. This is the rapid development of developments in today's technology. Information technology and systems can help run and improve a company's business processes if the technology and information systems are in line with existing business processes in the company. The CPO industry already has several applications to help business processes and improve the performance of the CPO industry's work, but these companies still need development related to their technology and information systems first in their plantations. Corporate architectural planning can help create technology and information systems in line with the company's business processes. In the company architecture itself, there are several supporting frameworks and this study will use the TOGAF (The Open Group Architecture Framework) framework. The results of this study are in the form of the TOGAF method model that is tailored to the business processes and business needs of the CPO industry which can help improve the company's business processes.

**Keyword: Entrepreneurship Architecture, TOGAF, Information Systems**

# **NINGSIH TINAMPI, TRADITIONAL SUPRANATURAL MEDICATION FIGURE GOES ONLINE: TOWARD CONTENT-BASED SOCIAL MEDIA ANALYSIS**

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## **ABSTRACT**

The hype of social media attracts people from various demographic background to utilize it, both for non-commercial use such as self-actualization and socialization needs, and for commercial use such as marketing and sales. Lately, Youtube gains more attention from the social media people, since it focuses on video-formatted content which allow more entertaining aspects of content published. This feature also attracts Traditional Supranatural Medication Figure, Ningsih Tinampi, who currently has 2, 85 Million subscribers. The online presence of this figure opens wide distribution to promote the medication offered by the figure, which attracts prospective patients not only from Indonesia, but also from overseas. This paper aims to analyse the social media strategy and sentiment of the audience of the Ningsih Tinampi's Youtube channel. The analysis done through lexicon-based approach by using NVivo 12 Plus to know the emerging themes appeared from the comments and understand the audience sentiment. The result showed that the theme which appear the most is greeting and pray that sent to Ningsih Tinampi which showed propensity of polarization toward positive sentiment.

**Keyword: Social Media Analysis, Sentiment Analysis, Youtube**

# DIGITAL LENDING DATAWAREHOUSE ARCHITECTURE USING LAMBDA ARCHITECTURE CONCEPT

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## ABSTRACT

Retail lending business has been dominated by banks for decades, but starting from 2013 fintechs slowly manage to gain the ground. The competition in Indonesia now is quite tough. From 2018, more banks are moving into the arena of digital lending using mobile app. Sticking to the existing loan and banking regulations, they challenge back fintechs that relatively more lax on rules. While digital lending app, whether from web or mobile channel or both, generate far less daily transaction than digital payments, it has more variety on data types. Customer are uploading photos, necessary documents, along with text data they fill in the quite long loan application form. Online KYC also generate audio-video recorded data. Biometric implementation could also trigger a requirement of storing image, audio or other binary data in the database or file server. Analytical system that orchestrated with digital lending system can also become more sophisticated. The requirement to analyze various combination of data types triggers necessity of complex infrastructure and robust architecture. In this paper we propose a data warehouse architecture that could accommodate the big data characteristics and could also be scaled according to the business capacity of its implementor. By proposing the usage of lambda architecture that arisen since about 2012, we could implement both real time and batch processing simultaneously.

**Keyword: digital lending, fintech, data warehouse**

# **DEVELOPMENT OF POWER PLANTS APPLICATION WITH VIRTUAL REALITY TECHNOLOGY FOR VOCATIONAL HIGH SCHOOL**

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## **ABSTRACT**

Technological advances are growing rapidly, with information technology now frequently turning to Virtual Reality Platforms. Information media has now become digital media with Virtual Reality technology that encourages students to freely experiment and develop their own knowledge in a learning atmosphere close to the world they choose to provide learning materials. This virtual reality material architecture plays a role in delivering students to the environment, in this case, the electricity generation process at PLTU Paiton, as if students know themselves in the Paiton PLTU environment and can learn the production process. Electrical energy without the need to go to the generator location. In developing this prototype, the authors use the ADDIE model to build virtual reality products which consists of five steps: (1) research, (2) architecture, (3) application, (4) development, and (5) evaluation. This research involved content material sources, including school-based electrical engineering, virtual reality media content creators, and university reviewers. Testing software for virtual reality was carried out on several students in high school. The making of a Power Plant application with Virtual Reality Technology in Electrical Learning is projected to bring out creativity and bring diversity to today's learning media so that learning will be more interesting.

**Keyword: Virtual Reality, Power Plant, Education, Electrical**

# **APPLICATION OF AUGMENTED REALITY TECHNOLOGY IN CHEMISTRY LEARNING DURING THE COVID-19 PANDEMIC**

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## **ABSTRACT**

Users can imagine objects in 3 dimensions in Augmented Reality technology. Augmented Reality has the bonus of real-time socializing so that Augmented Reality can be applied in various fields. In the field of education, Augmented Reality is used as a means of teaching and learning. The purpose of making learning media is to incorporate Augmented Reality Technologies into the world of education in schools in Indonesia, especially in the field of Chemistry Learning in High Schools. The Covid-19 pandemic makes teaching and learning activities to be carried out online and at home, which leads to deficiencies in the practice of chemical tools. Based on these problems, the ReAR application was designed using Augmented Reality technology. The research approach used in this paper is the ADDIE research method, namely study, design, development, implementation, and assessment. The ReAR application is projected to lead to creativity and convenience in today's learning media. With the use of Augmented Reality technologies in the field of education, it is hoped that it will be more immersive and interesting to apply to learning approaches.

**Keyword: augmented reality, chemistry, education, ReAR**

# DESIGN AND IMPLEMENTATION FACE RECOGNITION BASED ON K-NN WITH OPENCV

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## ABSTRACT

Advances of camera-based face-recognition technologies may be used for various uses, such as payment schemes, health, and safety. One key point to remember when using surveillance cameras is that they are still far away and that there is no organized smart control system yet. The cameras in use today cannot identify faces and discriminate between persons. It is essential to plan a model with an integrated control system in this exploration. This model uses both the camera module and OpenCV as well as the python library as input libraries such as Dlib and the facial recognition library. The method of approach used is k-NN (k-Nearest Neighbor). Programmed, attractive and efficient handling allows for the progressive decomposition of information. Face detection in the progress of video taken by a camera using the OpenCV and Python libraries shows names in frames according to the dataset. One module will be used for training, and the other module will be used not only for observation, but also for identification of the faces in the film. This model is meant to be the solution to make it easy for user to take advantage of the observation process within the system.

**Keyword: Face Recognition, Open CV, Python Library, Dlib**

# **DESIGN OF WEB-BASED DISTANCE LEARNING BIPALOKA FOR FOREIGN SPEAKERS IN INDONESIA**

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## **ABSTRACT**

This study aims to design a Web-based distance learning application in Indonesian Language Learning called BIPALOKA. This name is taken from the word BIPA (Bahasa Indonesia bagi Penutur Assign) which is an Indonesian language learning program for foreign speakers. The number of foreign speakers learning Indonesian continues to grow from year to year. To maintain this fast growth, a digital platform was needed to facilitate the identification of native speakers and adapt content to the needs of international speakers with the creation of a BIPALOKA website. The method used in designing the website uses a prototype method with a waterfall model, starting with (1) Analysis (2) designing a prototype (3) Implementation (4) testing and developing to user (5) maintenance. In designing this system, Unified Modelling Language (UML) is needed. The result of this research is a web-based distance learning application design which consists of interaction design between users, data design, and interface design. With this Web-based distance learning application it can help the learning process during the COVID-19 pandemic so that the learning process becomes more effective and efficient.

**Keyword: BIPALOKA, website, native speakers, Indonesia**

# **DESIGN AND BUILD INFORMATION SYSTEM USING DJANGO WEB FRAMEWORK**

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## **ABSTRACT**

The purpose of authoring this paper is to provide a design that can later be used to replace the system that previously was manual to be automatic and easy to use. That is what is expected to provide solutions to problems that exist in the manual system currently used. The system development method uses the SDLC (System Development Life Cycle) method which is expected to build the system quickly because the business processes of the system are already running. The stages in the development method include planning / planning, user design and construction. In the manual system that is currently running, there are several technical problems, one of which is the automation of the numbering. The solution used for the current system is to take several actions each year. Therefore, it is proposed to design this system to produce a system that is more maximal in letter number automation, the performance of the system itself and the effectiveness of existing resources.

**Keywords: Information Systems, SDLC, website**

# **DIGITAL IMAGE IMPLEMENTATION ON MULTIPLE CHOICE EXAM ANSWER SHEET CORRECTION SYSTEM USING ADAPTIVE CANNY EDGE DETECTION METHOD**

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## **ABSTRACT**

This research is a development study that aims to create an Android application to correct the test answer sheet in Khoiriyah Hasyim Vocational High School Tebuireng Jombang. The method used in this study is adaptive canny edge detection. This method is used to find the edge of the answer that the student has selected. The program started by capturing answer sheets and crop it only on its Region Of Interest (ROI), then convert it in form of grayscale image to make the computation time become faster. The next process is image filtering using median filter for removing noise on captured image. Then for the next stage is edge detection using adaptive canny, so that the parameter become adaptive depend on its image input. The last process is answer detection using pattern and coordinate recognition to determine which answer that has been choosen, and then compare it with answer key database to obtain the student score. The minimum accuracy level from an experiment using 30 LJK sample sheets with this application was 92%. Also the threshold parameters are not fixed value, but vary according to the brightness level and image quality of the answer sheet image input.

**Keywords: tracking, image, canny, detection, edge**

# **MASKED FACE RECOGNITION AND TEMPERATURE DETECTION FOR ENTRANCE SYSTEM DURING THE COVID-19 PANDEMIC**

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## **ABSTRACT**

During this COVID-19 pandemic we must always wear masks to protect ourselves from viruses. Almost all of public area such as café, mall, and theme park needs to ensure that people use masks when entering that area. It will be of great service to society to create an automate solution to detect if the people is wearing a face mask and enable their entrance. In this study, a thermal camera and an RGB camera were used to determine the temperature of the visitors and whether they were wearing masks or not. If visitors do not use masks or have abnormal body temperatures, a buzzer will sound as a warning. In this research, the Deep Learning technique is used to construct a basic Face Mask recognition system and used OpenCV library for realtime applications. We evaluate our proposed masked face detection algorithm on the MASKED FACE testing set, and it achieves satisfactory performance. However, this system still needs improvement in order to achieve better results in detecting temperature more accurately.

**Keyword: Face masked, thermal camera, opencv, face detection,**

# **INDONESIAN TEACHER ENGAGEMENT INDEX (ITEI) DEVELOPMENT NEURAL NETWORK DESIGN**

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## **ABSTRACT**

The Indonesian Teacher Engagement Index (ITEI) is an instrument designed to help teachers detect themselves through self-diagnostics. The results of self-diagnosis are then developed systemically with the aim of becoming a decision support system for the central government to the regions in the field of education. The potential of Neural Networks to find predictive problem solutions has been greatly emphasized in the literature. That is the background of this research to develop ITEI design and produce Teacher Profiling through ITEI based on Neural Network. The initial stages that have been carried out in determining Teacher Profiling are conducting a deeper study of the selection of competition architecture on the Neural Network Automatically as well as determining the design and development of ITEI Application development. This study is a follow-up study aimed at developing Neural Network Design in ITEI Applications

**Keyword: Neural Network, Teacher Engagement**

## **CLASSIFICATION OF MATURITY LEVEL OF KEFIR MILK WITH K-NEAREST NEIGHBOR (KNN) METHOD USING LIGHT SENSOR AND LDR SENSOR**

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### **ABSTRACT**

Milk is a product that is classified as rare in Indonesian society and also the age of milk that is classified as short, making it difficult for the community to consume milk every day. Therefore, the prototype of the kefir milk fermentation process is designed using the K-nearest neighbor method. Starting from fresh cow's milk mixed with kefir seeds, after that the freshly mixed kefir milk will be inserted into the dark box in the box, there are color sensors and light sensors that are used to monitor color changes and the light intensity that occurs when fermentation is in progress. The readings obtained by the next two sensors will be determined using the K-nearest neighbor method. The test results obtained to determine the accuracy of the reading of the light sensor is worth 5.12% while the color sensor is worth 8.64% from the results of testing the two sensors, it can be concluded that the readings of the two sensors can be said to be quite good. The test results on the Kefir milk maturity level classification system using the K-nearest neighbor method with 10 times testing found an accuracy rate of 80%. And the average value of system computing time obtained after the calculation of the value of K obtained 353.3ms in 10 times the test.

**Keywords: milk, kefir milk, K-nearest neighbor, light sensor, color sensor**

# **ONLINE BASED COMMUNICATION MODEL FOR INDONESIAN MIGRANT WORKERS IN HONG KONG IN FINANCIAL MANAGEMENT**

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## **ABSTRACT**

Communication is an important factor for the existence of Indonesian Migrant Workers (PMI) who work abroad. Communication is mainly to interact with family and colleagues. Based on the preliminary study, the communication conducted did not specifically discussing financial management. The aim study: 1) Analyze PMI communication patterns; 2) Understand the factors that affect PMI's financial management; 3) Find PMI's online communication model with families in financial management. Qualitative research methods, descriptive nature. The research was conducted in 2018. The informants were PMI who worked in Hong Kong and PMI's families in hometown. Purposive Determination of Informants Technique & snow ball. Data collection techniques: Interviews and FGD. Data analysis using the Interactive Technique. Data Validity Test through Triangulation to BP2MI and KJRI Hong Kong. Results: 1) PMI communication patterns were carried out using the WhatsApp. Communication is carried out periodically at least once a week during work holidays. The purpose of communication was to provide information about the conditions experienced by both PMI and their families in hometown. Communication messages talk about the financial needs of families in hometown but rarely talk about financial management for productive things. 2) Factors that influence financial management include length of work, personal needs at work. 3) PMI's online-based communication model with families in financial management illustrates PMI communication and the ideal family conveying financial management messages about the use of remittances for productive and savings businesses so that PMI has a productive business as provisions after their resignation as a migrant worker.

**Keywords: Communication Model, Indonesian Migrant Workers, Financial Management**

# **CLASSIFICATION X-RAY IMAGE OF THE LUNGS WITH GLCM FEATURE EXTRACTION BASED ON SVM**

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## **ABSTRACT**

The feature extraction process in an image is usually used to sharpen the characteristics which are the characteristics of an image. This stage in the extraction process is called data pre-processing. In this study, the image extraction process is used to classify images into certain groups. The image taken is secondary data from the X-ray image of the lungs in grayscale form. Extraction of feature features from X-ray images of the lungs using the GLCM (Gray Level Co-occurrence Matrix) method is used for lung image classification. The GLCM or Gray Level Co-occurrence Matrix method is a method used to obtain second-order characteristics by calculating the probability between two pixels at a certain distance and the angular orientation. The use of GCLM feature extraction is actually to identify the presence of pneumonia on X-rays of the lungs. Image extraction using the Gray Level Co-occurrence Matrix (GLCM) of the lung images is classified into two classes, namely healthy lungs (Normal) and lungs that are infected due to viruses or bacteria (Pneumonia). The characteristics used in this study are Contrast, Correlation, Energy, Entropy and Homogeneity. Gray Level Co-occurrence Matrix (GLCM) has four angular directions, namely 0°, 45°, 90° and 135°. The extracted features are given to SVM classifier for classification of infection lung from normal lung. The SVM classification achieved an accuracy of 92% for detecting and classification of infection lung.

**Keyword: pneumonia, feature extraction, classification, gray level co-occurrence matrix, support vector machine.**

# **MOBILE IDENTIFICATION OF SYMPTOM APPS BASED ON NATURAL LANGUAGE PROCESSING (NLP) AND INTERNATIONAL CLASSIFICATION OF DISEASES AND RELATED HEALTH PROBLEM (ICD-11)**

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## **ABSTRACT**

People have a lack of awareness and knowledge of the initial symptoms of any diseases so that being a factor causing the disease to be serious can even cause death. The early identification of symptoms is very important for diagnosis process to prevent and overcome the spread of diseases. Doctor or nurse give several questions to the patient and use Anamnesis process to get the symptoms of the diseases in the form of narration. The result of Anamnesis is store in Electronic Medical Record (EMR). The record in EMR is not easy to be process by computer due to inappropriate grammar, it needs Natural Language Processing (NLP). In this study, we develop mobile identification of symptoms apps that work by utilized NLP and ICD-11.

**Keywords: mobile identification, symptoms, NLP, ICD-11**

# **FIVE YEARS E-LEARNING IMPLEMENTATION IMPACT ON STUDENT PERCEPTION**

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## **ABSTRACT**

The use of instructional media is essential in the learning process, especially for theoretical subjects. Most universities in Indonesia utilize learning media in e-learning, aiming to make learning more effective and efficient. So far, the application of e-learning has not received serious attention from both the university management and the academic community. Due to the Covid-19 virus pandemic, the lockdown has provided a lesson for all education managers and teachers that the use of e-learning is essential. However, the application of e-learning still needs to be evaluated, especially from the student side. Does the application of e-learning for five years have a positive impact on students? This study aims to determine the perceptions of students who have implemented e-learning for more than five years in Yogyakarta, Indonesia. From this study, we found that e-learning has not increased the effectiveness and efficiency of learning activities. We found that students' perceptions of e-learning show an ordinary attitude. The application of e-learning for five years has not been able to provide an attractive and comfortable system. Why did this happen?

**Keywords: E-Learning, Student Perception, Learning Management System**

# **THE DEVELOPMENT OF QUR'AN WRITING APPLICATION FOR MOBILE LEARNING**

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## **ABSTRACT**

Writing is one of the essential abilities in the learning process in school besides reading and memorizing skills. Learning and understanding the Qur'an is the main lesson in religious subjects. The writing of the Qur'an is lower when compared to reading activities, so the ability to write is slower than reading. One of the constraints of writing activities is the waste of paper. Along with the development of technologies such as smartphones, writing activities can use devices. That is because of the comfort and practicality offered by smartphones. Students can write repeatedly. Also, learning to use a smartphone student can learn anywhere and anytime so that when compared to traditional writing is much more practical. Nevertheless, the use of smartphones to learn to write the Qur'an needs to be researched, especially in terms of user acceptance. In this study, a mobile learning application was used as one of the solutions to improve the writing ability of the Qur'an. The positive impact of writing the Qur'an characters using smartphones is to reduce the teacher's task in evaluating students' learning outcomes. Instead, students did not respond positively.

**Keywords: smartphone, Al-Qur'an, writing skill**

# **IDENTIFY FAKE IMAGES WITH MACHINE LEARNING USING FITUR FEATURE EXTRACTION AND FEATURE SELECTION**

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## **ABSTRACT**

Uploading a photo that is not private property or does not include a photo history is considered a crime. It is difficult to distinguish between real or fake photos because digital technology makes perfect edits possible. In image processing, a feature to detect the authenticity of the image is used through a series of Feature Extraction and Feature Selection stages. In Features extraction, photos are extracted to extract unique characteristics from the data processed by the Edge detection or edge enhancement method and also color separation. The extraction results are reprocessed using the Feature selectio method, in a preprocessing manner and aims to select influential features and override features that do not affect data modeling or analysis activities. The authenticity of the image is tested at the evaluation stage using SSE (Sum Square Error). Data sources were taken online as many as 10 images and original images as many as 5 images to identify and find out the differences in patterns that occur in the fake image and the original image.

**Keyword: fake image, identification, features, feature extraction, feature selection**

# **UMGESHC 2020 DEVELOPMENT CONFERENCE SYSTEMS USING SCRUM MODEL**

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## **ABSTRACT**

The need for information systems is increasing these days, especially the conditions of the Covid 19 pandemic. In the Covid 19 Pandemic era, many activities will be carried out through information technology and communication technology (ICT). UMGESHIC 2020 is an international conference event will be held when the Covid 19 pandemic has been still ongoing, so the organizers involve information technology and communication technology (ICT) in organizing the 2020 UMGESHIC event. Development of an information system that is able to meet the needs of users, both presenters, participants and organizers is the main challenge. The development of an information system using the Scrum model is very suitable to be applied in developing the UMGESHIC 2020 system. The Scrum Model is included in the agile model, the Scrum Model uses an iterative method which helps in organizing a team where strong communication between team members is the main requirements. The Scrum Model says that each "sprint" begins with a brief meeting for planning and ends with a review, this process will be repeated until an information system is obtained that suits user needs.

**Keyword : information systems requirements, scrum model, agile model, online journal systems**

# **USABILITY ASSESSMENT AND EVALUATION OF UNIVERSITAS MUHAMMADIYAH GRESIK LEARNING MANAGEMENT SYSTEM (SPADA)**

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## **ABSTRACT**

Information and communication technology has developed very rapidly. These developments have penetrated almost all sectors, including the education sector. The learning process required to follow these developments so as not to be left behind by the development of the industry. Universitas Muhammadiyah Gresik (UMG) accelerates the implementation of online education by making E-learning, caled SPADA (Sistem Pembelajaran Daring). In practice, a system that has been created must be evaluated for usability assessment for further development. The system must be able to meet the needs and work efficiently and easily to use. For this reason, this research was conducted to determine the usability of the SPADA system that was applied at UMG. From the research conducted, it was found that the variables that affect the level of usability of using SPADA are usefulness variables. Usability measurements of SPADA have a value of 60.6% which indicates that the results of the SPADA usability measurement have a level of "feasible". While the variable with the lowest average value is use of learning with a value of 13.0667.

**Keywords: usability, SPADA, e-learning**

# **IMPLEMENTATION OF OPEN ERP IN SME'S PERISHABLE PRODUCT (CASE STUDY: FRUIT PRODUCTS)**

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## **ABSTRACT**

Indonesia is one of big agricultural country that has a lot of agricultural resources. However, the Information Technology approach in agriculture in Indonesia is lower than in the industrial sector. Agricultural products include perishable products, which is another problem. Perishable products must handle with care due to the many constraints in distribution and sale. One of the selling points is selling cheaper than it should be to reduce product waste. In selling fruit, people wasted some of the fruit when it reaches its lifespan. We can reduce the wasting fruit if we sell at a lower price before their useful life. The above problems look very complicated with a traditional solution. Thus, an ERP solution to avoid falling prices for fruit products is the best solution. ERP (Enterprise Resource Planning) is a useful tool for driving supply chain processes in agriculture. However, ERP is known to be an expensive tool. Thus, it makes farmers and Small and Medium Enterprises lack their interest in ERP. This paper describes how we design a solution using Open ERP. This solution proved to be capable of producing a low-cost system for dealing with selling fruit.

**Keywords: SME, ERP, Odoo, fruits, price depreciation**

# **CONSUMER SWITCHING BEHAVIOUR: AN EFFECT OF COVID-19 IN JEMBER REGENCY**

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## **ABSTRACT**

COVID-19 OVID-19 has caused economic disruption which is connected globally. The Covid-19 pandemic caused consumer switching behaviour as a result of government policies in handling Covid-19. This study aims to obtain an overview of consumer switching behaviour during the Covid-19 pandemic. This research was conducted by using a quantitative descriptive statistical method approach and the population in this study were people in Jember district who were affected by Covid-19. The sample used in this study were 100 respondents and the data analysis method used was descriptive percentages. Validity testing was done using the product moment correlation coefficient with the help of software SPSS 20. Meanwhile, the reliability testing used a single trial administration approach by the Cronbach alpha coefficient formula. The results showed that 74% of people choose to stay at home during the Covid-19 Pandemic with a level of compliance with government policies reaching 93.5%. These results also indicate that the majority of respondents or 46.7% stated that the amount of expenditure for their consumption needs tended to increase, 34.3% of respondents stated that they were still and 18.9% of respondents stated that their total expenditure had decreased. In addition, the majority of respondents or as much as 71.6% thought that government policies in handling Covid-19 caused changes in consumption behavior where the consumption pattern took into account the quality of service and cleanliness of shopping places with a percentage of 55.6% and 25.4% of respondents.

**Keywords: Consumer Switching Behaviour, Covid-19, Economic Disruption**

# **COMPARISON OF NAIVE BAYES AND RANDOM FORESTS CLASSIFIER IN THE CLASSIFICATION OF NEWS ARTICLE POPULARITY AS LEARNING MATERIAL.**

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## **ABSTRACT**

Twentribune.com is a website that provides news texts with Lexile level information for each text. The Lexile level information feature is useful as a consideration for visitors to choose text that has a level of difficulty that matches their age. With such information, any news text on the site can be used as attractive teaching material for both teachers and students. However, the number of visits to each text varies widely. This study assumes that the popularity of each text is influenced not only by Lexile level information but also by other text characteristics. This research produces a number of engineering features that are extracted from the text to be used as a predictive attribute in classifying the popularity of the texts in question. Naïve Bayes and Random Forest are two classifiers used together with two popularity cluster scenarios based on k-means clustering. The results of the testing and evaluation phase show that the Random Forest algorithm has the best performance, with an accuracy value of 99.75%, an average recall value of 99.7%, and an average precision value of 98.7%.

**Keyword: Lexile level, Popularity, Naive Bayes, Random Forest, Learning Material**

# **PERFORMANCE COMPARISON OF ENSEMBLE-BASED K-NEAREST NEIGHBOR AND CART CLASSIFIERS FOR THE CLASSIFICATION OF ADAPTIVE E-LEARNING USER KNOWLEDGE LEVELS**

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## **ABSTRACT**

A person's learning style that refers to the preferred way of learning is the basis for the development of the Adaptive Educational Intelligent Hypermedia System (AEIHS) or adaptive e-learning. By knowing specific learning styles, the system can provide recommendations and offer instructions to someone on how to optimize the learning process. The right learning style is needed because it can support the achievement of a person's level of knowledge in learning. The problem in determining this level of knowledge is related to the performance of data mining methods as measured by algorithm performance. High performance is indicated by the optimal results of the algorithm used. On the other hand, the K-Nearest Neighbor (KNN) algorithm and Classification and Regression Trees (CART) have been shown to have good performance in various fields. Therefore, this study aims to compare the performance of data mining methods, namely K-Nearest Neighbor (KNN) and Classification and Regression Trees (CART). There are six scenarios carried out for comparison, including comparing the performance of the original algorithm and ensemble methods, namely bagging and boosting. The results of this study are the best performance results for the classification of the level of user knowledge of adaptive e-learning from several scenarios performed. CART boosting algorithm shows the best performance with an accuracy of 94.0%, precision of 94.2%, and recall of 94.0%. The best scenario of the algorithm used is expected to be a guide for developing AEIHS-based Education or adaptive e-learning.

**Keywords: Knowledge Level, Adaptive eLearning, k-Nearest Neighbor, CART, Ensemble**

# **ASSESSMENT OF CLASSIFICATION TECHNIQUES USING DATA MINING FOR THE ACADEMIC PERFORMANCE INDEX OF LECTURERS IN ONLINE LEARNING**

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## **ABSTRACT**

Development of web-based educational technology has been accelerating, especially to facilitate students in learning activities. In addition, the application of quality standards to learning activities provides opportunities for researchers to study the needs of students during learning and also identify what approaches are needed so that learning can run well and affect the success of students. The main contribution of this research is to identify data mining techniques that have a good level of accuracy in predicting the Academic Performance Index of Lecturers. The techniques we use in designing models or classifications are Naïve Bayes, K-Nearest Neighbor (KNN) and Neural Network (NN). The results show that the accuracy obtained by Neural Network is 91.07%, KNN 77.21% and Naive Bayes 74.81%. Next identify student assessment factors that influence the predictive value of the Academic Performance Index

**Keywords: data mining, naive bayes, K-Nearest Neighbor, Neural Network, Academics Performance**

# **DIGITALIZATION TEMPERATURE AND AIR HUMADITY SENSOR IN SERVER ROOM USING APACHE CORDOVA FRAMEWORK**

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## **ABSTRACT**

The server room is one the vital place in the all area business in industrial sector. Because all of the system in this unit, work and configure in the computer that has high computation and all of data was save in this room. For saving condition of the computer in this room, they has a standar weather, so all of device in this place can be avoided from the harm damage that ca be interfered the running of business. For saving the weather condition in this room, must has two variable that must full filled, that is temperature and humadity. For temperature, must has range from 16-22°C, and then for humadity in the range 40-55%.. When that two variabel has a value less or more than that threshold, then sure confirmed this room not suitable and must reconfigured again, so can be back to normal condition. The hard of difficulty for keeping and monitoring condition server room for technician, when they still out of the work. So they can not montoring that place in that time. So for make the technician's job easier , it needs to be made concept digitalization with Apache Cordova Framework and Internet of Things (IOT) with ESP8266 as transmitter data from server using internet to monitor temperature and humadity using mobile device.

**Keywords: digitalitation, technology 4.0, IOT**

# LOCATION-BASED SOLO TRAVELER APPLICATION TO INCREASING INDONESIA TOURISM

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## ABSTRACT

A location-based Solo Traveler application, an application to help a person to solo traveling. The Guide-In application makes it easier for solo travelers to travel itself because the features provided are developed specifically for helps users carry out travel activities alone such as booking travel packages including an application that converts all manual processes in tourism, into digital processes, facilitating all the travel processes like entrance tickets for tourist attractions, coupons at dining places, and has features to set user schedules and provide schedule details such as historical information on tourist attractions, information on places that must be visited and others, give convenience and comfort feeling for Solo Traveler. Location-based features give contextual information based on their location. an application with personalized features gives engagement and a feeling of comfort to travelers because they are not flooded with irrelevant information. The convenience and comfort feeling provided by this application, it will certainly increase the number of trips to tourist places, especially in Indonesia.

**Keyword: Solo traveler, location-based tourism application, contextual tourism application.**

# **PREDICTING ICT READINESS ON MSME INDONESIA: AN ANALYSIS OF TECHNOLOGY READINESS AND ACCEPTANCE MODEL (TRAM)**

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## **ABSTRACT**

It had been proven that Micro, small and medium-sized firms (MSMEs) contributed to the country's economic resilience during the 2008-09 financial crisis in Indonesia. This study aims to determine the level of MSMEs' ICT adoption in Indonesia This study predicts the impact of using TRAM (Technology Readiness Acceptance Model) model. The method used to collect data in this study is by distributing questionnaires with Purposive Sampling method to obtain 403 samples. SEM (Structural Equation Modeling) used to analyze the relationship of independent variables to the dependent variable by processing data using SmartPLS. The results of this study indicate that there is a significant effect between optimism and innovative attitude towards the perceived ease of use and perceived usefulness, as well as the perceived ease of use and perceived usefulness towards intention to use. Also, there is an insignificant effect between discomfort and insecurity towards the perceived ease of use and perceived usefulness.

**Keyword : ICT adoption, MSME, readiness to adopt, TRAM Model, Indonesia**

# **LOAN AS A HYGGE: ACCEPTANCE AND USE OF MICRO-LOAN PAYLATER FEATURE IN E-COMMERCE**

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## **ABSTRACT**

The use of Buy-Now-Pay-Later financial microloan feature in e-commerce has gained popularity in Indonesia especially during the Pandemic Covid 19 foremost of its easiness of requirements in filing and access electronically. The newest feature, called PayLater, is now embedded in mobile application, makes it easier and more accessible to use. This study examined factors that influence customers' acceptance and intention to use the PayLater feature using The Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). The quantitative approach with survey method was conducted to 486 respondents. The data were analysed using multiple linear regression. The result showed that UTAUT2 variable: social influence, hedonic motivation, price value, and habit have a significant influence towards the intention to use PayLater feature meanwhile the other variable i.e. performance expectancy, effort expectancy, and facilitating condition do not have a significant influence towards the intention to use PayLater Feature.

**Keywords: PayLater, UTAUT2, Loan, Indonesia, E-Commerce**

# **MEDIATING ROLE OF CUSTOMER PERCEPTION ON THE RELATIONSHIP BETWEEN E-WOM AND PURCHASE DECISION IN INSTAGRAM**

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## **ABSTRACT**

Social media, especially Instagram has advantages with its lot of features such as online chat, message, comment as electronic word-of-mouth this advantage influence customers perceptions in purchase decision making. The objective of this research is to determine the effects of electronic word of mouth on purchasing decision and the mediating role of consumer perceptions. The method of collecting data is by taking the questionnaires of 100 respondents from one Silver Jewelry Company The results of this research has shown that electronic word-of-mouth has a positive and significant effect on consumer perceptions, electronic word-of-mouth has a positive and significant effect on purchasing decisions, consumer perceptions has a positive and significant effect on purchasing decisions, and electronic word-of-mouth has positive and significant effect on purchasing decisions mediating by consumer perceptions.

**Keyword: Consumer Perception, Electronic Word-of-Mouth (E-WOM), Instagram, Jewelry, Purchase Decision**

# **AUTHENTIC LEARNING FRAMEWORK FOR HIGHER EDUCATION CASE STUDY OF ONLINE DISTANCE EDUCATION (ADJUSTMENTS TO THE CONDITIONS OF THE COVID-19 PANDEMIC)**

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## **ABSTRACT**

The broad interest in online learning in higher education around the world brings a need for authentic learning, which is real-world oriented learning. In an effort to develop a distance learning curriculum that is able to support authentic learning in a formal education program and provide feedback to measure learning outcomes. This paper presents a draft authentic learning framework covering: Identification of Personal Skills in Bloom's Taxonomy, mapping Bloom's Taxonomy to Knowledge Domains, curriculum frameworks, design of authentic learning activities and design of content development and evaluation rubrics. The results of the study through the FGD discussion group forum which were attended by students, faculty members, instructional designers and industry practitioners concluded that the authentic learning framework is quite representative and can be applied in a distance learning system based on authentic learning.

**Keywords: Authentic Learning, Curriculum, Distance Education, Online Learning, Personalization Learning**

# **PERFORMANCE COMPARISON OF MACHINE LEARNING-BASED SENTIMENT POLARITY MINING FROM CODE-MIXED TWITTER DATA**

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## **ABSTRACT**

This paper presents an experiment results on performance comparison several machine learning models for sentiment analysis from code-mixed twitter data involving Bahasa Indonesia and Eastern-Java dialect of Javanese language. From an experiment using SVM, Logistic Regression, Naive Bayes, k-NN, Random Forst, and Gradient Boosting Trees models, the experiment results showed that Logistic Regression model achieved the highest performance (0.98 average accuracy, 0.98 precision, 1.00 AUC ROC) followed by Support Vector Machine model (0.97 average accuracy, 0.97 precision, 0.99 AUC ROC). The experiment results tend to indicate that SVM and Logistic Regression models are quite prospective as classification models for code-mixed text represented as multidimensional and sparse dataset of sentence representation.

**Keywords: sentiment analysis, machine learning, code-mixed data**

# **HATE SPEECH DETECTION FROM CODE-MIXED TWITTER DATA OF BAHASA INDONESIA AND EAST-JAVA DIALECT OF JAVANESE LANGUAGE USING MACHINE LEARNING MODEL**

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## **ABSTRACT**

Hate speech is the use of offensive language publicly. In the past decade, online hate speech has raised serious concerns globally as it is not only sign of intolerance and discrimination but also has been linked to violence toward minorities. Hate speech detection is a challenging Natural Language Processing problem. One main challenge is cultural factor contributes to interpretation of sentence which contains unpleasantly rough words but might not be considered as hate speech during casual communication. This paper presents an experiment results on performance comparison several machine learning models for sentiment analysis from code-mixed twitter data involving Bahasa Indonesia and East-Java dialect of Javanese language. From an experiment using SVM, Logistic Regression, Naive Bayes, k-NN, Random Forst, and Gradient Boosting Trees models, the experiment results showed that Logistic Regression and Support Vector Machine model both achieve 0.96 average accuracy and 0.99 AUC ROC which are the highest values from the other model performance metrics.

**Keywords: sentiment analysis, machine learning, code-mixed data, East-Java dialect of Javanese Language**

# **SENTIMENT POLARITY MINING FROM CODE-MIXED TWITTER DATA: A LITERATURE REVIEW**

Yaya Heryadi, Bambang Dwi Wijanarko, Dina Fitria Murad, Nunung Nurul Qomariyah, Kiyota and Hashimoto

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## **ABSTRACT**

Sentiment analysis has emerged as a powerful method to extract polarization of opinion, perception, emotion, or aspiration from input in the form of text. Many studies have shown some evidences that the output of sentiment analysis is very instrumental for many organizations or industries for various purposes such as: improving service, improving product quality, creating new product, revising plan, or enhancing business process in a wide range of application domains including education, marketing, promotion, and many others. In the past decade, sentiment analysis continuous to evolve into many directions including aspect based, multimodal, contextual, domain adaptation, multilingual, sarcasm analysis, sentiment aware Natural Language Generation, and bias in sentiment analysis. As a branch of multilingual sentiment analysis, recently code-mixed sentiment analysis from social media data has raised wide research attention due to several factors such as: increasing popularity of social media that used code-mixed language, wide availability annotated code-mixed data, robust cross-lingual word embedding method, and high accuracy of machine translation. Despite many monolingual-based sentiment analysis methods have been proposed; unfortunately, those methods can not be used for code-mixed sentiment analysis from social media data due to, among others, wide used of non-standard either word spelling, transliterate words, or non-grammatical sentences. This study reviews some prominent publications on general sentiment analysis and code-mixed sentiment analysis. In particular, a focus point is code-mixed sentiment analysis involving Bahasa Indonesia and local language.

**Keywords: code-mixed sentiment analysis, text representation, classification model**

## CIVIL ENGINEERING

### STUDY INFLUENCES OF CHANNEL SLOPE VARIATION AND FROUDE NUMBERS ON VARIATION IN MANNING ROUGHNESS COEFFICIENT VALUES BASED ON FLUME EXPERIMENTS

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#### ABSTRACT

In general, open channels have a turbulent flow type. It type of flow requires an empirical approach, namely uniform flow, permanent flow, small slope, and prismatic channels. The flow velocity value can be determined using the Manning equation. The problem that arises is for determining the Manning roughness coefficient ( $n$ ) on precise is difficult. It is because many factors influence it. One such factor is the channel slope ( $S_0$ ). The variation of the channel slope and the variation of the Manning roughness coefficient causes changes in the value of flow velocity. It change can be seen from the movement of the value of the Froude ( $Fr$ ) number. This research tries to find the value of  $n$  using Froude's number and  $S_0$ , and otherwise. The first objective of this study was to determine the relationship between the Manning roughness coefficient and Froude's number. The second objective is to determine the relationship between the slope of the channel and Froude's number. The third objective is to determine the relationship between the Manning roughness coefficient, and the channel slope. To collect data using the flume experimental method. Data are analyzed using Manning's equation and Froude's equation. The first result shows that the smallest  $n$  value is 0.007365, and the largest  $n$  value is 0.009106. The second result obtained that the smallest  $Fr$  value is 0.7157, and the largest  $Fr$  value is 3.1494. The third result shows that the smallest  $n$  value is 0.007385 and the largest  $n$  value is 0.009139.

**Keywords:** Flume experiment, channel slope, Froude's number, Manning roughness coefficient

# **A SYSTEM DYNAMIC MODEL ANALYSIS FOR COASTAL ECOTOURISM CASE STUDY OF BALURAN NATIONAL PARK, INDONESIA**

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## **ABSTRACT**

Baluran National Park is one of the Natural Resource Conservation which has a rich of biological and non-biological potential in eastern Java. The park covers an area of 25.000 hectares including 40 km of attractive coastline. Forty percent of the park consists of savanna, teeming with wildlife. It has a territorial structure landscape which used as a tourism destination from various regions and backgrounds. Thus, the number of tourists in Baluran National Park has rapidly increased year to year. Since the increase in the number of tourists, it will affect the quality of coastal resources in Baluran National Park. Based on this, hence it is necessary to evaluate the effectiveness of conservation policy and coastal tourism management in Baluran National Park by integrating the ecology, economy, social and institutional dimensions. The specific aim of this reasearh is to evaluate the sustainability ecotourism by developing a system dynamic model using STELLA. Thera are four of sub-models which introduced as a property from the dynamic models are Sub-Model of Ecological, Economics, social and institutional. The system dynamic models shown that there is an increase in the economy of local society due to a tourist increase. In another hands the integration of conservation costs, coastal ecotourism product prices, local community participation and infrastructure in ecotourism management has been identified as able to increase the economic strength of local communities and sustainable natural resources in Baluran National Park.

**Keywords: system dynamic, Baluran National Park, Ecotourism**

# REGULATION OF ILLEGAL LENDING FINTECH IN INDONESIA

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## ABSTRACT

Presently, lending fintech in Indonesia is increasing significantly. Lending fintech is regulated with the Financial Services Authority Regulation Number 77 of 2018 concerning Information Technology-Based Money Lending and Borrowing Services. Until September 2020, there was 156 lending fintech registered in the Financial Services Authority. Besides this registered lending fintech, there are also many illegal lending fintech operating. Almost 1,477 illegal lending fintech business activities have been stopped with the Financial Services Authority. Unfortunately, this illegal lending fintech is still emerging. Of course, this condition is not suitable for the development of lending fintech activities in Indonesia. Therefore, this paper tries to analyze why illegal lending fintech continues to emerge even though the Financial Services Authority has made various efforts to prevent it. The study of this research uses normative juridical. This paper concludes that the current regulations governing lending fintech do not strictly regulate illegal lending fintech. There need to be strict and heavy sanctions given to the perpetrators who carry out illegal lending fintech activities so that no one else dares to carry out illegal fintech lending activities again.

**Keywords: regulation, illegal, lending fintech**

# **THE UTILIZATION OF SHELLFISH WASTE AS A FILLER IN THE LASTON LAYER (CONCRETE ASPHALT LAYER)**

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## **ABSTRACT**

Damage to road construction is one of the problems that is often encountered, so that research on alternative materials to overcome these problems is needed. Experiments on the use of shellfish waste containing the chemical compound  $\text{SiO}_2$  and the grain character that resembles sand as an asphalt mixture is expected to increase the strength and durability of the pavement. Tests were carried out in the laboratory to determine the compressive strength of asphalt using the Marshall Test with a filler mixing composition of 0%, 5%, 10%, 15%, 20% and 25% taken from the percentage of fine aggregate. Based on the results of the research conducted, the optimum asphalt content value was 4% with the Marshall quotient value of 370.15 kg/mm, the optimum value of shellfish filler waste content is 20% with the Marshall quotient value 431.81 kg/mm, and the result of the Marshall quotient for the immersion test for 30 minutes of 341.68 kg/mm, 6 hours of 309.44 kg/mm, 24 hours of 303.116 kg/mm and 48 hours of 293.08 kg/mm. So it can be concluded that the shellfish waste filler can be used in a mixture of laston pavement layers with an appropriate mixture, but in this mixture a low durability value is obtained.

**Keywords: asphalt, Marshall test, laston, filler, Marshall quotient**

# **TRANSPORT MOVEMENT DISTRIBUTION PATTERN WITH DOUBLE CONSTRAIN GRAVITY MODEL METHOD (CASE STUDY OF ARTERIAL ROADS IN MALANG REGENCY)**

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## **ABSTRACT**

Malang Regency is one of the regencies that has a very fast growing and developing process. Therefore, the community is required to interact with many parties and use different land uses in their activities, so that this will cause a number of movements. Almost all roads in Malang Regency have a poor level of road service. With the movement that is getting higher and not matched by adequate infrastructure, it will cause transportation problems. The location of this research is arterial roads in Malang Regency. The purpose of this study was to determine the Destination Origin Matrix (O-D Matrix) model using the Double Constrain Model Gravity Method (DCGR). The technique of collecting data on the number generation and attraction trip of traffic movements in 33 sub-districts in Malang Regency. Where each district is defined as a zone, the traffic volume survey was carried out in 33 zones. The traffic volume survey was conducted in 2 days, namely working days and holidays by taking the morning, afternoon and evening busy times. Then the spatial data is mapped using the ArcGis coordinate transformation. Based on the results of the study, it was obtained the number of generation and attraction trip in each zone in Malang Regency. Almost 65% of the movement between zones in Malang Regency is in the same zone. Of the 33 zones, there are 13 zones for the distribution of internal movements, including Singosari, Lawang, Karangploso, Dau, Pakisaji, Kepanjen, Sumberpucung, Kromengan, Ampelgading, Turen, Dampit, Poncokusumo, Bantur districts.

**Keywords: Generation- Attraction Trip, Destination Origin Matrix (O-D Matrik), Double Constrain Model Gravity (DCGR)**

## Mechanical Engineering

# EXPERIMENTAL STUDY OF BIOMASS GASIFICATION IN REACTORS WITH VACUUM PRESSURE

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### ABSTRACT

The current technology of biomass gasification utilizes the high pressure, hence, the supply of biomass fuels to the reactor is difficult and there is also a risk of explosion. To make it easier and safer, co-current gasifier was used in this research. Co-current gasification uses the same hole for the air and biomass flow by suctioning them due to the vacuum pressure. The gasification process of biomass into flammable syngas requires high temperatures between 800 and 1000oC. The co-current gasifier experiment was carried out using rice and coconut husks as biomasses with and without reactor insulation. The experiments without reactor insulation showed a reactor temperature of 433oC for rice husks and 473oC for coconut husks, which were too low to produce syngas and there was no sign of flame. The experiment with a 30 mm reactor insulation and with rice husks as biomass resulted in a very high temperature of 1053oC, but the flame went out easily. In contrast, gasification with coconut husks with the same thickness of reactor insulation produced syngas with continuously burning flame for about 3 hours. The highest reactor temperature was 800oC. The variation of insulation thicknesses resulted in the differences in temperature drops. The thicker the reactor insulation, the smaller is the temperature drop. Reactor insulation thicknesses of 30, 80 and 130 mm showed temperature drops of 301, 198 and 172oC respectively. Furthermore, the gasification tests at 5 HP generator engine using coconut husks were able to produce an electrical power of about 457.8 W.

**Keywords:** gasification, renewable energy, biomass, coconut husks, rice husks

# **ANALYSIS OF DIGITAL RADIOGRAPHIC IMAGE OF STANDARD STEEL PLATE USING RHYTHM RT SOFTWARE BASED ON SNI ISO 17636-2: 2015**

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## **ABSTRACT**

Non Destructive Test can be done with Direct Radiography using a DXR 250U-W detector. Digital radiography refers to the SNI ISO 17636-2: 2015, which uses an IQI (image quality indicator) type of duplex and ISO wire. This study aims to analyze Direct Radiography results using IQI type duplex and ISO wire according to the SNI ISO 17636-2: 2015. The results of digital radiographic images were analyzed using Rhythm RT software to determine the acceptability of digital radiographic images and used to identify the types of defects and their sizes. The result is that there are 3 standard steel plates with a thickness of 12.8 mm using a W12 D8 penetrometer and 3 standard steel plates with a thickness of 16.3 mm using a W11 D8 penetrometer that meets the required standards. Each plate has two distinct defects that have been identified for their type and size using Rhythm RT. The results of the accuracy of this study were obtained by comparing the defect values from digital radiographic images with the defect values on standard steel plates. The deviation value is calculated for each defect value measurement. The largest deviation value is found on PL 27500 plate with 0.08677% defect with Tungsten Inclusion. The smallest deviation value is found in the PL 27504 plate measurement of 0.00037% with a Center Line Crack defect. To measure the level of accuracy of the measurement results of defect values, the RMSE method (root mean square error) was used with a calculation result of 0.10673.

**Keyword: Radiographic Image, Direct Radiography, Duplex**

# **SIMULATION OF OCEAN WAVE ENERGY HARVESTING WITH COMPLETELY RANDOMIZE DESIGNS (CRD)**

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## **ABSTRACT**

Electricity needs today are the primary needs, the sustainability of human life is mostly supported by the presence of electrical energy. We are in Indonesia which is a country consisting of many islands, and 77% of Indonesia is an ocean region. By utilizing the energy that contained in waves, it can generate an electric energy by using marine wave power plants. Marine wave power generator single pendulum pontoon system is one of the alternatives to address issues regarding electrical energy around the world. Simulations were conducted to determine the electrical energy that will be obtained from the marine wave power generation system of the single pendulum pontoon system. the system was simulated with Mat Lab software by controlling the variable amplitude of ocean waves. The obtained results from the simulation comprises current flow, power, and voltage data that are generated from the marine wave power generation system. This study focused on whether different amplitude levels were significantly affect current flow, power, and voltage results from the single pendulum pontoon system's marine wave power plant, hence Minitab software is used to process data. This study concludes that different amplitude level settings have a real effect on current flow, voltage, and power result.

**Keyword: ocean wave energy harvesting, ocean wave amplitude, CRD (completely randomize designs)**

# IMPLEMENTATION UI GREEN METRIC FOR DEVELOPMENT NEW CAMPUS

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## ABSTRACT

This research aims to develop a new campus that will apply the smart and green campus concept. This research was conducted on the Untirta campus as a new campus that reconstructs the vision to become a superior, smart, and green campus in the ASEAN region 2030. The first step was to conduct an initial assessment of the green campus concept's implementation based on the green metric UI standard to achieve this vision. Green metric UI standard assessment is assessed based on six criteria: settings and infrastructure; energy and climate change; waste; water; transportation; education, and research. From results of the green metric calculation, it was found that the achievement of the green campus implementation score in the faculty of engineering was 594 point for structuring and infrastructure, 757 for energy and climate change, 600 for waste treatment, 350 for water treatment, 975 for transportation, and 750 for education and research. Untirta's engineering faculty has only reached 40% with a UI green metric score of 4.026.

**Keywords: green metric, new campus**

## **AMBIGUOUS IDENTITY OF BERTHOLD IN FILM AKU INGIN MENCIMUMMU SEKALI SAJA**

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### **ABSTRACT**

The film *Aku Ingin Menciummu Sekali Saja* (2002) is the first film that takes the background, cast, and show the conflicts in Papua. As a text, this film carries a discourse that can show the reality of the identity struggle in Papua. This paper aims to show the ambiguity of Berthold's identity, one of the three main characters in the film. Berthold is father of one, he works as an art teacher, and also a Free West Papua Organization's supporter. Through film studies and discourse analysis approach, this paper examines how identities are intertwined and very fluid in a society's structure, it can change along with the time.

**Keywords:** film studies, *Aku Ingin Menciummu Sekali Saja*, Papua, identity, ambiguity

## **ELECTRONICAL ENGINEERING**

# **BITE FORCE MEASUREMENT USING FLEXIFORCE SENSOR INTERFACE PERSONAL COMPUTER**

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### **ABSTRACT**

The bite force of the teeth has a very important role in dental health. It is useful to benchmark the type of the material to produce the dentures, determine the growth of the teeth, and diagnose the dental caries. Besides, the less bite force and below the normal limit of biting pressure can affect chewing which can be impacted in the digestive system. Therefore, we need a tool that can detect the bite force in humans related with the technology in this era. The purpose of this research is to design a system of tools that can take the bite force. This research focuses on the use of electronics and technology to create a system that can serve as a bite force diagnostic tool. The hardware of this research uses a flexiforce sensor, a set of amplifier instrumentation, a set of Low Pass Filter, an adder/clamper, Arduino Nano, Bluetooth serial communication, a visual interface on a Personal Computer. The research was conducted on six test, that sensor testing, gain testing, filter testing, data delivery, tool calibration and function of the tool. From the test results, the tool works well where the test results of each circuit component and module show the test value that is in accordance with its functions and characteristics, the reinforcement circuit performs linear reinforcement for about 3 times, the Low Pass Filter filters the exact frequency of the cut-off frequency, and data communication between Arduino and Delphi program is well established. Other than that, the results of the comparison of the tool measurement with the comparison tool obtained a very small error value, which is about 0.09% with a precision value of the measurement above 98%.

**Keywords: bite force, flexiforce sensor, interface personal computer**

# **NINGSIH TINAMPI'S COMMUNICATION STRATEGY IN CONVEYING MYTH THROUGH VIDEO ON YOUTUBE**

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## **ABSTRACT**

Belief in a ritual healing that communicated through a video on YouTube by Ningsih Tinampi made her treatment becomes viral. Furthermore, she adjust her treatment during pandemic with the statement that she already met and found the corona virus cure. Knows how to handle it, and using several symbols to persuade her patient. Instantly it increased her follower on YouTube. The number of audience who stopped by or followed Ningsih Tinampi's YouTube account which reaches millions makes researchers curious how Ningsih Tinampi's communication strategy in conveying myth through video on YouTube. Communication strategy is a method used by the communicator to convey a message to the communicant. A communicator must have a character, skills and good faith in order to be heard and understood by the communicant. A message cannot be conveyed intact if it is not accompanied by a communication strategy. In addition, the appeal of the communicator also needs to be highlighted, so that all messages can be thought through by the communicant carefully. This study using Roland Barthes's Semiotics Theory. Semiotics is a method that sees signs in social phenomena. The analytical tool used is to accept objects and ideas that are visible, so no objects are taken for granted. Semiotic is a studio that discusses the language that shapes human perceptions and thoughts about a thought. The method in this study is semiotic analysis. This study using primary Data and secondary Data. Meanwhile, to find out the validity of the data this study using triangulation data.

**Keywords: ningsih tinampi's communication, video, youtube**

## **TEKNIK INDUSTRIAL**

### **RISK MITIGATION STRATEGY IN COMPLETING GRINDING TIRE PRODUCT ASSIGNMENT USING HOUSE OF RISK AND ANALYTICAL NETWORK PROCESS**

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#### **ABSTRACT**

Delay in completing work is one indicator of company performance. From March 2018 to March 2019, an electric power company in the Cilegon area reached four months of achieving its target and nine months of experiencing delays in assignment or not completing its target. One of the products that experienced delays was Grinding Tire. This study aims to determine the Aggregate Risk Potential ranking and risk priority in completing Grinding Tire construction assignment activities and mitigation strategies in assignment completion activities at an electric power company. This study identifies the company's risks using the House of Risk (HOR) and Analytical Network Process (ANP) methods. The results showed that the three risk agents who got priority with the highest ARP (Aggregate Risk Potential) value were machine damaged suddenly, vendor ability was not previously qualified/verified, and no special team for equipment monitoring. The best mitigation strategies to minimize risk with the ANP method are internal and external communication and evaluating collaborating vendors). The integration of HOR and ANP can prioritize the best mitigation strategy to reduce the risks that occur.

**Keywords: mitigation, grinding tire product, analytical network process**

## **DEVELOPMENT OF BUSINESS MODELS TO IMPROVE THE COMPETITIVENESS OF THE PRODUCED FISH SALES INDUSTRY**

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### **ABSTRACT**

The fishing industry is one of the supporting factors for economy's Indonesia especially in Gresik, Gresik as a big national fish supplier the development of technology and information in fishing industry make all of seller in Gresik using the business model canvas (BMC) and create business model improvements in the industry, the collecting data in this study using interview, questionnaire, and qualitative. This research is focused on creating a new business model an approach (BMC) that sees the company thought nine elements, they are: (1) Customer segmentations, (2) Value Propositions, (3) Channels, (4) Customer relationship, (5) Revenue streams, (6) Key Resources, (7) Key Activities, (8) Key Partnerships, and (9) Cost Structure. The result of this study show that the business model has been found weakness at nine elements therefore, it is necessary to improve all of the elements.

**Keywords: business models, competitiveness, fish sales industry**

# **MODEL EQUATION OF REGRESSION OF EFFECTIVENESS MICRO, SMALL AND MEDIUM-SIZED ENTERPRISES (MSMEs) RESISTANCE STRATEGY AFFECTED BY THE COVID 19 PANDEMIC**

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## **ABSTRACT**

The economic shocks caused by the Covid-19 pandemic have devastated almost all joints of the national economy, and the group most affected at this time is the Micro, Small and Medium Enterprises (MSMEs) group. Even when Indonesia experienced a monetary crisis in 1998, MSMEs became a buffer for the national economy, absorbed labor, and moved the economy. Meanwhile in 2008 during the global financial crisis, MSMEs remained strong to support the economy. However, the current conditions are very different, this sector still cannot withstand the crisis caused by the Covid-19 Pandemic. MSMEs are the sector most vulnerable to the economic crisis due to Covid-19. However, according to the survey results, 96% of micro, small and medium enterprises (MSMEs) have experienced the negative impact of the pandemic Covid-19 on their business processes. As many as 75% of them experienced a significant drop in sales. So that it is necessary to make a survival strategy for MSMEs affected by the Covid Pandemic 19. The effectiveness of this survival strategy for MSMEs needs to consider several related matters, the effectiveness of MSMEs, production activities, mastery of innovation, promotion, business plans, e-commerce, and product reliability. The specific target to be achieved is the realization of the equality model for the effectiveness of the defense strategy and the best solution for MSMEs. To be precise, it will produce a Regression Equation Model which is useful for producing entrepreneurial policy models and can optimize the effectiveness of MSMEs during the Covid Pandemic 19 crisis like today. In the implementation stage, the respondent's data was collected through a questionnaire from  $\pm$  300 MSMEs spread across Indonesia with a significance level of 10%. Data processing was carried out by using the Classical Assumption Test and continued with Multiple Regression Analysis and testing between variables to obtain the Equation Model for the Effectiveness of Survival Strategies for MSMEs. It is this Equation Model that is expected to be a guide for MSMEs to be able to maintain their business in the midst of the Covid 19 Pandemic.

**Keywords: effectiveness micro, small and medium-sized enterprises (msmes), covid 19 pandemic**

## **ANALYSIS OF POTENTIAL FINANCIAL GRADUATES AND SHARIA FINANCE IN ISLAMIC FINANCIAL INDUSTRY**

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### **ABSTRACT**

Islamic banking in Indonesia has existed for two decades starting from 1992. Until July 2020, the OJK (Financial Services Authority) released data that the Islamic banking industry grew to 14 total Islamic commercial banks, 1,940 offices, 491 branch offices, 1,252 branch offices, 197 households, with a need for 49,996 total workers for Islamic commercial banks, while total UUS the bank is 389 with 5,229 the number of workers required. The increase in the number of institutions and workforce is an essential note for the adequacy of human resources in the field of Islamic banking. It requires human resources who have excellent Competence in the fields of economics, finance and Islamic banking. Until July 2020, when referring to the existing HR trend, the projection of the need for Islamic Banking HR is around 50,000 employees. Various universities in Indonesia have attempted to meet these needs by preparing study programs in the fields of economics, finance and Islamic banking. This participation did not only come from religious universities; Public also took part in answering these problems. The number of study programs and the number of lecturers currently available are still not sufficient for this need. This need will continue to increase in the following years. Through this research, it is hoped that it will become information so that sharia economics and finance graduates will be more efficient and useful in society, including the scope of the field of sharia.

**Keywords: Islamic Economics and Finance, Islamic Banks, Sharia Business Units, Islamic Universities, Public Universities.**

## **RECOMMENDING SUPPLY CHAIN MANAGEMENT PERFORMANCE IMPROVEMENT USING THE SCOR (SUPPLY CHAIN OPERATIONS REFERENCE) METHOD AT PT POLOWIJO GOSARI GRESIK**

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### **ABSTRACT**

PT Polowijo Gosari Gresik is one of several national private companies engaged in the fertilizer industry and dolomite mining materials. Measurement is only applied to each part, without using a performance measurement system to control supply chain performance so that it is less effective and efficient. So the researcher is interested in recommending improvements in the performance measurement of Supply Chain performance by using the Supply Chain Operations Reference (SCOR) method and the Analytical Hierarchy Process (AHP). obtained 16 performance indicators or Key Performance Indicators (KPI) in accordance with the conditions of the company. 3 KPIs from Plan, 5 KPIs from Source, 4 KPIs from Make, 2 KPIs from Deliver, and 2 KPIs from Return. The results of the study indicate that the supply chain performance value is an average of 73.368 which is included in the category of Good performance indicators. By weighting using AHP, it can be seen that 2 performance indicators that have low scores that need immediate corrective action are Forecast Accuracy and Product Failure in Production Process (PFPP). The recommendation for improvement in the Forecast Accuracy performance indicator is that forecasting demand should apply the correct forecasting method according to the demand data pattern in the previous period. Improve quality inspection of appropriate raw material compositions along the value stream. The recommended improvement for this type of humid defect is to check the temperature periodically and provide additional air ventilation or add sufficient air facilities by adding air conditioning.

**Keywords: AHP, Recommendations, Supply Chain, Supply Chain Operations Reference, Key Performance Indicator.**

**CREATIVITY AND INNOVATION ON STUDENTS' ENTREPRENEURIAL  
INTEREST (CASE STUDY: INDUSTRIAL ENGINEERING STUDENT OF  
PELALAWAN SCHOOL OF TECHNOLOGY)**

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**ABSTRACT**

Central bureau of statistics showed 5.73 percent tpt of graduate student in february 2020. In order to reduce this value, ministry of education encourages entrepreneurship course in both private and public universities, expecting that some students shows interest to become entrepreneur.

**Keywords: Creativity, Innovation, Student.**

## **ANALYSIS OF CONSUMER PREFERENCES ON SHRIMP'S CRACKER HOME INDUSTRY OF PENAJAM PASER UTARA TO PREVENT SHRIMP'S WASTE USING CONJOINT ANALYSIS**

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### **ABSTRACT**

Fishery play an important role in Indonesia. From this fishery, there will by by-product like small shrimps. If not handled properly, these shrimps can be a serious waste problem from the fishy odour. One of the way to handle it is to make use of it as cracker. But, the sale of this cracker confront some problems like, the sales were low, and sometimes, no consumer or market. In the other side, if handled properly and meet customer's requirement, can be a solution to this by-product. So, this research was conducted to understand the consumer preference of this product. This research conducted using questionnaire on the shrimp's cracker made by the housewives in RT 11, PPU Regency, East Borneo. This questionnaire was used to obtain attribute level and to analyse the importance using conjoint method. The analysis' results shows that for the shrimp's cracker, conformance attribute play an important role. Based on attribute level, consumer prefer affordable prices, good quality of main materials, crackers consume as side dish, crackers does not smell fishy, have a MUI halal label, easy to get, and tidy packaging. These preference can be used as consideration to develop this home industry shrimp's cracker.

**Keywords: consumer preferences, shrimp's cracker, home industry**

## **PERFORMANCE MEASUREMENT FRAMEWORK FOR AQUACULTURE SUPPLY CHAIN PERFORMANCE: WEIGHTING CRITERIA BY UNITY**

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### **ABSTRACT**

This article is an improvement of an article [1] entitled Development Framework for Aquaculture Supply Chain Performance Measurement. In that article, a framework has been developed by weighting the criteria and indicators for each supply chain actor, but there is no criteria weight as a whole network. This article will complete the weight of the criteria as a whole supply chain network. Weighting is done with the concept of analytical hierarchy process. From the results of weight calculations, it was found that the efficiency criteria had a weight of 0.225. Flexibility criteria has a weight of 0.077. Facility criteria have a weighting of 0.168. The government involvement criterion has a weight of 0.116. Product quality criteria have a weight of 0.251. Responsive criteria have a weight of 0.163. Product quality is the criterion with the highest level of importance, so that this criterion contributes the most to the performance of the supply chain. There is a difference in the weight of the criteria if calculated as a whole network compared to each level calculation of the aquaculture fish supply chain.

**Keywords: measurement framework, aquaculture supply chain, weighting criteria.**

**ALTERNATIVE SELECTION OF STUDY PROGRAMS IN FACULTY OF  
ENGINEERING BASED ON 4 CRITERIA WITH STATISTICAL APPROACH AND  
TECHNIQUE FOR ORDER PERFORMANCE BY SIMILARY TO IDEAL  
SOLUTION**

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**ABSTRACT**

The selection of the right study program is one of its own problems for students who want to continue their education. Not only because of interest, but the selection of the right majors will also impact on employment opportunities, not only that the number of competitors and seats in a study program on campus is also a special spice for students who want to continue school. Not only that, the fees charged by each alternative study program are other things to consider. In this case, researchers will try to rank priority study programs at the Technical Faculty on campus as an alternative selection with 4 criteria (C1) job vacancies needs, (C2) Amount of Interest, (C3) Amount Received, (C4) Cost Per Semester TOPSIS analysis assistance. This analysis is intended to provide alternative students so that when choosing a major they not only think about the interest factor, but other factors

**Keywords: faculty of engineering, 4 criteria with statistical approach**

# **SUPPLY CHAIN PERFORMANCE MEASUREMENT FOR ONE MAINTENANCE CYCLE OF BROILER PLASMA FARM**

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## **ABSTRACT**

To become a partner of a core company on a broiler plasma farm, a farmer must have good performance. The performance measurement of plasma farms was carried out by the core company with a number called performance index (IP), where this IP reflects the value of the plasma farmers that will be used by the core company to determine the next cooperative relationship. The IP calculation is done at the end of a maintenance cycle by the field extension officer (FEO) based on the results of daily reports. In determining the IP calculation, the factors seen are The Feed Consumption Rate (FCR), Mortality, and the use of drugs, vitamins, and chemical. For Plasma farmers, the obtained IP was only a report from the results of work in one maintenance cycle, while management in the core supply chain process was not known, how the farm's performance was. Prior research succeeded in designing an instrument for Assess Supply Chain Performance for Broiler Plasma Farms using five core processes SCOR and Analytical Hierarchy (AHP) for weighting. This research will measure the supply chain performance of several Plasma farms with the designed instrument. From the results of this performance measurement, plasma farmers will get an idea of which core processes need to be improved so that the performance in the next cycle will be better. In addition, this research will also look for the correlation between the performance obtained and the IP that has been assessed by the core company.

**Keywords: supply chain performance, maintenance cycle, broiler plasma farm**

**RISK MANAGEMENT FRAMEWORK IN PRIVATE HIGHER EDUCATION  
ON STUDENT EXCHANGE PROGRAM WITH AS/NZS 31000:2009  
APPROACH (CASE STUDY: PERMATA SAKTI UMG)**

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**ABSTRACT**

Studies on risk management have been produced by many universities, but ironically it can be said that universities in Indonesia have not explicitly implemented risk management in the management of their universities. Therefore, understanding the risks faced and managing these risks appropriately will enhance the university's ability to make better decisions, increase the university's ability to provide services to stakeholders and assist in carrying out its mission and achieving university goals. The purpose of this study is to discuss a risk management framework that can be applied to private universities with a case study at the University of Muhammadiyah Gresik in the student exchange program using the qualitative method. This study analyzes the risk management framework that should be implemented by UMG. Data were analyzed using interactive models, including data collection with interview and documentation techniques, data reduction, data presentation, and conclusions. The risk management process uses the AS/NZS 31000:2009 risk management process standard, which consists of a process of determining context, risk identification, risk analysis, risk evaluation, risk management and monitoring. The study concluded that risk management has been running at UMG, although it has not been structured and systematic, especially in technical matters such as the implementation of student exchange programs. Therefore, UMG needs to establish risk management structures, processes and procedures. The risk management structure can use a control model run by the unit leader assisted by the Quality Assurance Agency as the coordinator of the risk management process; or supervision carried out by the Audit Committee.

**Keywords: Risk management, student exchange, AS/NZS 31000:2009**

# **DISASTER MITIGATION THE GENDER ROLE IN LAND AND FOREST FIRE THROUGH EDUCATION BASED ON LOCAL KNOWLEDGE IN PULANG PISAU, CENTRAL KALIMANTAN**

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## **ABSTRACT**

Land and forest fire peat has been a problem which is very serious in the province of Central Kalimantan, Karhutla has happened in district Pulang Pisau a few years later than the year 2015 until 2019. The frequent scene a forest fire in district Pulang Pisau has led to the gap in disaster management karhutla gender. In dealing with this need to mitigate local knowledge through education by involving the role of women. The purpose of this research analyze a kind of disaster management through the role of gender by making use of the local wisdom in terms of traditional knowledge based on the local community. Based on the research land and forest fire often happens to be done by means of tackling through the involvement the role of women using traditional knowledge based on local knowledge society Pulang Pisau, Central Kalimantan, In order to management of peat by making the bulkhead of fuel and land management agricultural and plantation without fuel, as well as improving education in women through training and coaching to provide agricultural products without ever having large area. Mitigation measures to events karhutla through improving education should be conducted by taking into account the local community of local knowledge. Greater involvement of women in a condition was expected to go home a knife to sustainable land management peat and can improve economic and social conditions gender.

**Keywords: gender role, land and forest fire, local knowledge, mitigation, peat\**

# EXAMINING CAUSAL RELATIONS AMONG THE DRIVING FACTORS OF TRAVELERS' DESTINATION SELECTION USING THE DEMATEL METHOD: A CASE STUDY IN A TRAVEL AGENCY

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## ABSTRACT

The tourism sector, as a service industry, has multiple impacts on a country's economy. Since the industry is proliferating and providing its competitive services, it is important to investigate what travelers consider when selecting a traveling place. Multi-criteria decision-making (MCDM) involving multi factors for solving a complex decision-making problem can be applied to address the issue. This study aims to evaluate the influencing criteria on travelers' decision to select a destination using a decision-making trial and evaluation laboratory (DEMATEL). A case study in a local travel agency located in the favorite tourist destination Yogyakarta Indonesia is undertaken. The decision-making model comprises five criteria: attractions, amenities, access, reviews, and tourist price. The result indicated that DEMATEL was able to visualize causal relations among the five criteria through digraph clearly. Besides, DEMATEL classified the three criteria of attractions, amenities, and access, and the two criteria of reviews and tourist price as cause and effect, respectively. This study enables decision-makers (DMs) to improve these driving factors, although in this case, DEMATEL cannot determine the criteria' weights precisely. To determine the weight should be carried out using the other MCDM methods in the follow-up study.

**Keywords: examining causal relations, driving factors, travelers' destination selection, dematel method**

## **ALLEY CROPPING MODEL AS A SOLUTION TO INCREASE THE PRODUCTIVITY OF DRY LAND IN EAST JAVA PROVINCE INDONESIA**

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### **ABSTRACT**

Dryland generally has low productivity, compared to rice fields. Productivity can be increased by intensification activities, one of which is the application of alley cropping. The research objective was to see the effect of the model on the productivity of dryland productivity. The research method was carried out by random sampling. The data consists of primary and secondary data. Primary data is taken through a survey with questionnaires, while secondary data is taken from a literature review and expert discussion with a systems approach. Data analysis was performed using multiple linear regression with a financial approach. The results showed that intercropping has a significant effect on land productivity compared to monoculture and intercropping. The benefit-cost (B / C) of overlapping value is higher in monoculture cultivation.

**Keywords: alley cropping model, productivity of dry land**

# **HEALTH RISK INFORMATION SYSTEM DEVELOPMENT AS PREPAREDNESS OUTBREAK COVID-19: AN EXPLORATORY STUDY IN THE AL JIHAD ISLAMIC BOARDING SCHOOL, SURABAYA CITY, INDONESIA**

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## **ABSTRACT**

During the Covid-19 pandemic, Islamic boarding schools were one of the places at high risk for an outbreak. However, the implementation of health risk surveillance at the Islamic boarding schools has not been optimal, because it is still done manually and has not been integrated with the Primary Healthcare Centre, so the information cannot be obtained quickly. The purpose of this research is to develop a health risk surveillance information system in the Al-Jihad Islamic boarding school in Surabaya. The development procedure used is the Waterfall model (needs analysis, design, implementation and testing). Based on the results of the study, the web-based information system named SISKESTREN has met the functional needs of users, because it greatly facilitates the implementation of health risk surveillance and is able to respond quickly to results so that the Primary Healthcare Centre can immediately plan further actions. The implementation are able to provide an inventory of information data about health problems and the potential of Islamic boarding school. The availability of complete and accurate data is very helpful in making decisions.

**Keywords: health risk information, covid-19, exploratory study**

## **RELAYOUT OF FINISH PRODUCT WAREHOUSE OF PT. JAYA BETON INDONESIA USING CRAFT AND CORELAP METHODS**

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### **ABSTRACT**

PT. Jaya Beton Indonesia is an industrial company in the infrastructure sector, which produces concrete products. This company has a production strategy of make to order that production will typically be carried out only after a confirmed customer order is received. This means that the order will be made before the product is used. Based on preliminary study that has been carried out, it was found a problem that some departments were located in not suitable locations. The location of the finished product which was not well arranged resulted in waste of time and high material handling costs. This study aims to redesign the layout of the finished product warehouse in order to minimize distance. The methods used here were Computerized Relative Allocation of Facilities Technique and the Computerized Relationship Layout Planning algorithm. The Computerized Relative allocation of facilities technique method resulted in a decrease in the percentage of distance so that it was the best layout proposal.

**Keywords: PT. Jaya Beton Indonesia, SLP, CORELAP, Relayout**

# **ECONOMIC PRODUCTION QUANTITY MODEL WITH THE IMPERFECT PRODUCTION SYSTEM AND REWORK**

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## **ABSTRACT**

Economic Production Quantity (EPQ) has come a long way since it first emerged as an optimal finite replenishment order quantity. This paper develops to adapt to current industrial conditions. Many disturbing factors can cause problems for the perfection of production. In this paper, a single-stage production EPQ model was developed by reworking imperfect products. In addition, this paper will examine how the rework rate affects the optimal production quantity. The EPQ model and numerical examples that are built are relevant and verified.

**Keywords: economic production, imperfect production system, rework**

## PSYCHOLOGY

# INTERNET SELF-EFFICACY AND ACADEMIC PROCRASTINATION IN STUDENTS WHO FOLLOWING ONLINE LEARNING DURING THE COVID-19 PANDEMIC

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### ABSTRACT

A sudden change in learning system is a challenge for students, especially changes in learning habits. Shifting from offline to online class makes students who are not accustomed to using the internet doubted their abilities and tend to avoid the difficult task. Internet self-efficacy is a belief in an individual regarding his ability to organize and do a certain job through the internet. Internet self-efficacy is crucial in online learning carried out by all educational institutions during the Covid-19 pandemic because students are required to be more independent in all their academic activities. The subjects in this study were undergraduate students undergoing online learning using quantitative methods with correlation tests. The result of this study is that there is a positive correlation between individual beliefs in using the internet and academic procrastination.

**Keyword: Internet self-efficacy, academic procrastination, online learning**

## AGROTEKNOLOGI

### PERFORMANCE AND DIFFERENT CATEGORIES OF SONOK CATTLE IN PAMEKASAN DISTRICT, EAST JAVA, INDONESIA

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#### ABSTRACT

The Madurese community in their socio-cultural and socio-economic life is very closely related to interacting with cows, especially sonok cows, which are the superior female cows of Madura cattle. Sonok cattle for the Madurese community, especially farmers, are very useful as a means of entertainment and a means of saving money. Sonok cattle, which are female contestants, are indirectly able to maintain superior Madura cattle both genetically and in performance from Madurese cattle. The purpose of this study was to assess the performance of Madurese cows participating in the sonok cattle contest in the seed source area. This research is a descriptive study conducted by survey and interview by observing sonok cows from 1-2 meters from the front, rear, and side positions, as well as directly measuring the exterior condition of the sonok cows that participate in the contest at different age categories at the place where the contest is held. The sonok cattle contest participants come from four sub-districts located in the seed source area in Pamekasan district, namely Pakong, Pasean, Batumarmar, and Waru Districts. When the observations were carried out in August 2020, the observations were made on the color and condition of the skin, the shape of the horns, the shape of the back, the number of neck folds, eye bags, and body weight of the sonok cow. The results of the observation showed that the sonok cows contest respectively according to the categories of Calves, Dara and adults had shiny and smooth skin conditions of : 38.46%; 75%; 81.82%. 84.62% curved horns like a banana; 43.75%; 81.82%, has 3-5 fold folds: 30.77%; 43.75%; 54.55%. Straight back shape: 69.23%; 68.75%; 72.73%. And has a statistical size of body length: 113.38 cm; 130.88 cm; 141.82 cm. Bust: 125.23cm; 152.13 cm; 166.27 cm, and body weight using the winter formula: 164.4 kg; 280.0 kg; 362.5 kg.

**Keywords:** sonok cattle, performance, different categories, pamekasan district

## **SUBSTITUTION TURMERIC (CURCUMA LONGA L.) IN THE RATION AND WATER DRINKING OF NATIVE CHICKEN: REVIEW**

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### **ABSTRACT**

Indonesia is known as a potential country producing spices and herbs. Biodiversity contains a source of medicinal herbs value important especially in the country itself and the international world. This advantage is also directly proportional to the increasing awareness of public consumption of safe, healthy, whole, and halal livestock products. One of the bio that beneficial for livestock is the turmeric plant. Turmeric contains curcumin and natural anti-inflammatory and is an antioxidant. The compound curcumin also can increase appetite for free-range native chicken. In the native chicken, turmeric can be given in the form of powder turmeric and extraction. The content of nutrition turmeric among other curcuminoids, essential oil, and some vegetable oils, carbohydrate, protein, vitamin C, starch, and mineral salts. The article is a review of some research about the utilization of turmeric to improve the appearance of native chickens.

**Keywords: Turmeric, Ration, Water Drinking, Native Chicken**

## **FIELD EFFECTIVENESS OF EXTRACT OF FERMENTED CABBAGE LEAF HARVEST LITTER TO CONTROL PURPLE BLOTCH IN GARLIC ORGANIC FARMING**

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### **ABSTRACT**

Pests and diseases is the major constraint in garlic organic farming. To control the pests and diseases in this farming, chemical control is not an. Purple blotch caused by *Alternaria porri* (Ellis) Cif. *A. porri* is the most important disease. Effective biological control is needed to control the disease. Extracts of fermented cabbage leaf harvest litter (FCLHL) option contain microorganisms and produce secondary metabolite compounds having antifungal character. The extracts are promising control purple blotch on garlic organic farming. The field effectiveness of FCLHL's extract to control purple blotch on garlic organic farming practiced by UNS builder farmer group in Tawangmangu, Karanganyar are discussed in this paper. Garlic FCLHL's extracts effectively decreased the disease intensity of purple blotch on treated garlic by 35.97% over untreated garlic and secured the yields at 43.81%

**Keywords: field effectiveness, extract of fermented cabbage, control purple blotch, garlic organic farming**

## **FIELD APPLICATION OF LEMONGRASS OIL TO CONTROL APHIS GOSSYPHII AND VIRUS SYMPTOM ON CHILI**

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### **ABSTRACT**

Aphids (*Aphis gossypii*) is one of the important chili pests. This pest is not only directly damaging by sucking on the leaves but is also a vector of various chili viruses so that the impact of the presence of aphids in virus endemic areas is greater on growth and yield loss of chilies than those in non endemic area. Pest control with pesticides is still a favorite alternative for farmers because it is very practical. Botanical pesticides are certainly wiser in pest control because their environmental negative impact is relatively smaller compared to synthetic chemical pesticides. However, these botanical pesticides are generally less effective than synthetic chemicals. Nanotechnology formulation has been widely reported to increase the effectiveness of pesticides. One of the botanical pesticides that can be used as an active ingredient of botanical pesticides is oil of lemongrass (*Cymbopogon nardus*). This study evaluated the effectiveness of applying botanical pesticides with active ingredients of lemongrass oil which has been formulated with nanotechnology. The experiment was carried out in the field on April-August 2019. A unit of treatment is amount of 15 chilies replicated 3 times. The treatments were arranged by Randomized Complete Block Design (RCBD). The results showed that lemongrass oil were able to decrease population of aphids, disease intensity of virus symptoms, yield losses, and increase growth and yields of chili. Nonoformulation of lemongrass oil was more effective than those unformulated one.

**Keywords:** nanopesticide, crop losses, *Capsicum annum*, *Cymbopogon nardus*

## **GROWTH AND YIELD OF SEVERAL SORGHUM (*Sorghum bicolor* (L.) Moench) VARIETIES USING SEED BIOMATRICONDITIONING TREATMENT**

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### **ABSTRACT**

The purpose of this research is to get sorghum plants that are able to adapt to Gresik and have high productivity with high protein content. This research was conducted on land in Dahanrejo Village, Kebomas District, Gresik Regency, at an altitude of 6 m above sea level (asl). This study used a randomized block design (RBD) as an environmental design with two factors. The first factor consists of 2 treatments, namely Numbu Variety (V1), Super-1 Variety (V2). The second factor is the seed invigoration technique using the seed biomatriconditioning method, consisting of 3 treatments, namely Control (M1) without treatment, Biomatry. Biological agencies + Husk Charcoal Powder (M2), and Biomatry. Biological agencies + Red Brick Powder (M3). The technique of biomatriconditioning seeds can actually accelerate, uniform growth and increase the percentage of emergence of sprouts. The results of the observation of the germination rate obtained the best treatment combination in the V2M3 treatment combination.

**Keywords:** sorghum bicolor, varieties, seed biomatriconditioning

## **STUDY OF SEVERAL SUPERIOR SUGARCANE CLONES (SACCHARUM SPP.) GROWTH IN VARIOUS SALT STRESS LEVEL**

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### **ABSTRACT**

Salinity causes growth of sugarcane plants becomes disrupted and obstructed. This will lead to reduce yields and productivity. Therefore, a study of sugarcane clones growth in various salt stress level is needed to be done. This research was conducted to find out the responses of sugarcane clones growth in various salt stress level. Research method using a completely randomized factorial design consisting of two factors, namely sugarcane clones as first factor including SB 01, SB 02, SB 03 and SB 04, while second factor is salt stress level include 0g/l, 2 g/l, 4 g/l, 6g/l and 8g/l. Data was collected by observing some growth indicators. Data was analyzed by using Minitab 16 for ANOVA and LSD 5 %. Results showed that there is significant interaction occurred between treatment combination (sugarcane clone and salt stress level) for indicator stem height at 180 and 210 DAP, number of tillers at 60 DAP, scoring at 30 DAP and dry weight at 150 and 210 DAP. Indicator number of leaves and root length during observation showed no significant interaction between treatment combinations. However, based on analysis result, clone SB 01 and SB 02 are relative tolerant with salinity rather than other observed clones.

**Keywords: sugarcane clones, sugarcane growth, saline, salt stress level**

## **GUT BACTERIA COMMUNITY OF THE MILKFISH (CHANOS CHANOS FORSKAL.) IN GRESIK, EAST JAVA PROVINCE**

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### **ABSTRACT**

Milkfish is the important commodity of aquaculture in East Java. Based on data from Gresik District Office in 2018, fresh milkfish in Gresik is about 88.410 tons. Milkfish in Gresik is cultured in traditional polyculture ponds, and the problem is low productivity. Fishpond area in Gresik is in sub-district Sidayu, Bungah, Ujung Pangkah, and Panceng. The water for aquaculture is from the sea, Bengawan Solo River, Kali Lamong River, and groundwater. Uncontrolled exploitation ponds and exceed its naturally carrying capacity resulting in ponds damages and cause on decreasing productivity. The technology of fish culture became an alternatif solution to the ponds damages. The use of in situ bacteria as probiotics can repair the soil and water and improve the growth and immunity of fish. Studying the community of the fish bacteria, especially gut bacteria, can be the basic science of developing probiotic technology in aquaculture. Research use Microbact identification kits 24A and 24B to identify the biochemical characteristics. The result found seventy bacteria, that is. The data observed is a morphological colony, cells, Gram staining, spore staining, catalase production, and motility. Further research is needed to study the potential probiotic of these bacteria.

**Keywords: gut bacteria community, milkfish, chanos chanos forskal**

**BIOPESTICIDE APPLICATIONS TO IMPROVE THE RESISTANCE OF  
PUMMELO ORANGE PLANT (*Citrus maxima*) AGAINST DIPLODIA DISEASE  
(*Botryodiplodia theobromae* Path.)**

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**ABSTRACT**

Diplodia disease caused by *Botryodiplodia theobromae* Path. is a significant disease in pummelo citrus; controlling Diplodia disease with California porridge and pesticides negatively impact and is less effective. The use of biopesticide formulas to manage and induce pummelo cultivars to Diplodia disease is an effort to control the organic farming approach. This research is a factorial experiment with a completely randomized design. The first factor was the pummelo cultivar, which consisted of pummelo cultivars, Adas Nambangan, Adas Duku, Bali Merah, and Jawa. The second factor consisted of a concentration of 0 ml / l of biopesticides (no biopesticide), 7.5 ml/L, and 10 ml/l. The experimental parameters in this study included disease intensity, wound diameter, and salicylic acid content. The results showed the application of biopesticides could reduce disease incidence. The lowest disease intensity of 27.77% and 18.05% was found in Red Bali Pomelo Citrus, which was sprayed with a biopesticide formula with a concentration of 10 ml/L. The lowest disease intensity of 8.33% and 2.77% was shown in Adas Duku citrus plants with a biopesticide concentration of 10 ml/l. The application of biopesticides can increase plant resistance, seen from the more salicylic acid produced. Plants sprayed with a concentration of 10 ml/l of 10 ml/l had higher salicylic acid content than those sprayed with 7.5 ml/l of biopesticides, and the lowest was on plants that were not sprayed with biopesticides.

**Keywords:** Diplodia disease, *Botryodiplodia theobromae*, pummelo, biopesticide formula, induction of resistance

## UTILIZATION OF “UWI” PLANT RESOURCES (DIOSCOREA SP.) FOR RENEWABLE BIOENERGY

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### ABSTRACT

Many countries are currently making efforts to obtain alternative energy to reduce dependence on fossil energy resources. “Uwi” plant has high carbohydrate for food or support energy diversification, cause of high productivity and tolerant to be planted on upland. This research aims to study the potential of various types of "uwi"(Dioscorea sp.) as a raw material for ethanol products. The eight types of "uwi" were studied to see their ethanol content, namely three types of *Dioscorea alata* ("uwi kelapa" with white, purple and yellow color), *Dioscorea hispida* (“gadung”), *Dioscorea bulbifera* (“uwi Gandul”), *Dioscorea pentaphylla* ("uwi Katak"), and two types of *Dioscorea esculenta* ("gembili and gembolo" ) and *Dioscorea hispida* (“gadung”). Field experiment with RCBD used to obtain homogenous raw material followed by test of ethanol content on laboratory scale. The results showed that the kind of *Dioscorea hispida* had the highest ethanol content (4.94%), followed by *Dioscorea esculenta* (4.16%) and white yam *Dioscorea alata* (3.89%). The lowest levels were obtained by *Dioscorea pentaphylla* (0.36%) and *Dioscorea bulbifera* (1.53%). However, in terms of productivity, *Dioscorea alata* with white-coloured of the tuber is the most prospective considering its high production, ease of cultivation technique and tolerance of forest stands

**Keywords:** Alternative energy, bioethanol, diversity, “Uwi” plant, upland

# ANTIOXIDANT ACTIVITY AND PHYTOCHEMICAL CONTENTS OF COFFEE PULP FROM THREE COFFEE SPECIES COLLECTED IN SOUTHERN THAILAND AND JAMBI, INDONESIA

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## ABSTRACT

Coffee pulp is part of coffee cherry except for the seed and has many benefits for human health functions. The research aimed was to analyze antioxidant activity and phytochemical contents, including tannins, phenolics, and flavonoids of three coffee species. They are *Coffea arabica* (Arabica), *Coffea canephora* (Robusta), and *Coffea liberica* (Liberica) that collected in southern Thailand and Jambi, Indonesia. The coffee pulp of Arabica from Indonesia dominated almost in all parameters, including antioxidant activity ( $67.37 \pm 11.83$  mg/100g DW), tannin ( $40.71 \pm 3.52$  mg/100g DW), and phenolic ( $50.47 \pm 5.43$  mg/100g DW). Robusta coffee pulp from Thailand contained a lower value of all phytochemical components. However, the coffee pulp of Liberica from Thailand had a higher value for all phytochemical compositions and the highest flavonoid content ( $18.19 \pm 0.95$  mg/100g DW) among the three species in both countries. These results indicate that both the species and the environment influenced the phytochemical compositions of coffee pulp. Thus, it is advantageous for Indonesia to develop more products from Arabica coffee pulp, while Thailand may benefit from creating the Liberica coffee pulp product.

**Keywords:** coffee waste, antioxidant activity, tannins, phenolics

## **EVAPORATION RATE, METEOROLOGICAL AND PHYSICAL CONDITION OF SALT CRYSTALLIZER POND IN PAMEKASAN, INDONESIA**

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### **ABSTRACT**

Salt is a strategic commodity that is no less important than other basic needs, this is because salt is an industrial raw material and foodstuffs including for households, the food industry, the CAP industry, pharmaceuticals and petroleum. The main sources of salt are sea water, rock salt (NaCl mineral halite), and salt lake water. Evaporating sea water is the common method that used to produce salt in Indonesia. Therefore by using the seawater evaporation method, the weather and physical factors of the salt pond will affect salt production. This research purpose to determine evaporation rate, meteorological and physical condition of salt crystallizer pond. Measurement of relative humidity, wind speed, brine concentration, temperature (air, soil, and brine), and brine volume were conducted at three salt crystallizer ponds. This parameters were measured every six hours. The measurement started from brine entering the salt crystallizer pond until salt harvesting. The result showed that salt could be produce even though the humidity and wind speed in this area were out of the standart criteria recomended (<50% humidity and >5 m/s for wind speed). In addition, the soil temperature is several times higher than the temperature of water and air because the soil is able to withstand the absorbed heat. The highest evaporation of brine in crystallizer pond occurs at 7 am to 7 pm.

**Keywords:** evaporation rate, meteorological and physical, salt crystallizer

**THE TRANSFORMATION PROCESS OF CONVENTIONAL FARMING GROUPS INTO ORGANIC FARMERS (A CASE STUDY OF PANTES FARMER'S GROUP IN KEBONPEDES VILLAGES, KEBONPEDES DISTRICT, SUKABUMI REGENCY, WEST JAVA PROVINCY)**

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**ABSTRACT**

Organic farming is a solution for the damage to the agricultural environment due to the application of conventional agriculture which still uses chemical fertilizers and pesticides. The Holistic Bina Desa Programme (PHP2D) is a community empowerment activity carried out by the UMMI Agribusiness Student Association. One of the programs is to conduct training for farmer groups to transform conventional farmer groups into organic farmer groups. This study aims to determine how the process of changing the Pantès farmer group into an organic farmer group, as well as to find out what obstacles occur during the process. The method used is a qualitative descriptive method with a case study approach and uses the Milles and Hubberman data analysis model. The results showed that the Pantès farmer group had followed all stages of the process which became the PHP2D program and had changed to the Pantès Organic Farmer Group (KPO). The constraints faced are land conditioning for organic farming, pest control and organic fertilizers that require a long process. Farmers must be consistent in implementing organic farming.

**Keywords: conventional farming, organic farmers, kebonpedes villages**

**Effect of drought and genotype towards growth and yield components of Bambara groundnut (*Vigna subterranea*)**

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**ABSTRACT**

Bambara groundnut has high nutritional and economic value. Integrated management to this crop can manage it become a zero-waste crop. However, farmers plant it only once per year depending on rainfall. This research was conducted in a greenhouse in polybags to obtain drought-tolerant genotype for the superior candidate variety of Bambara groundnut. Three lines used, namely G1, G2 and G3. G1 and G2 are cross lines, and G3 is an existing local Gresik line. Four levels of drought stress, namely D1 (watering 100 ml / day), D2 (watering 75 ml / day), D3 (watering 50 ml / day) and D4 (watering 25 ml / day). The experiment using factorial Completely Random Block design repeated ten times. Data analysis used ANOVA to determine treatment interactions to thirteen variables used, followed by DMRT0.05 to determine the significant interaction of the observed variables, and PCA to determine the main variables associated with this research. The analysis results showed that the interaction between D and G treatments was very significant in the variables of yield components, including the number of pods, number of seeds, pod dry weight, dry seed weight, 100 seeds weight, and biomass. G1D1 shows the best combination treatment to pod and seed number, pod and seed dry weight, and biomass. Moreover, G1 and G2 remain stable in 100 seed traits at a different level of draught. PCA variable loadings suggest those six variables of yield components can be used the important traits for similar research in the future.

**Keywords:** *Bambara groundnut, drought tolerance, yield components*

## **FISHERI**

### **HISTOPATHOLOGICAL PROFILE AND METHALLOTHIONEIN LEVEL IN RESPONSE TO LEAD DEPURATION ON FILOPALUDINA JAVANICA**

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#### **ABSTRACT**

The heavy metal lead has been reported to contaminate water areas along the Glagah River, Lamongan district, Indonesia. Lead contamination affects organisms that live in this area, such as the freshwater snail, *Filopaludina javanica*. The results of previous studies, it was reported that the lead contamination of the whole organs of this snail was  $2.92 \pm 0.5$  ppm. Furthermore, these results indicate that lead contamination was higher than Indonesian government regulations (1.5 ppm). The local community has used these snails as animal feed. Therefore, lead contamination can cause serious problems because lead can accidentally accumulate in the human body through the food chain. One of the efforts to reduce risks related to food safety is depuration. This study aims to determine the effect of depuration with flushing systems on the histopathological profile and levels of metallothionein in whole organs of *Filopaludina javanica*. Histopathological tests were carried out to determine tissue damage using a microscope, while to determine the level of metallothionein, the ELISA (Enzyme-Linked Immunosorbent Assay) method was used. The results showed that there was a decrease in tissue damage (0-6.1%). Meanwhile, metallothionein analysis has not shown a significant decrease in levels

## **WATER QUALITY AND ABSOLUTE GROWTH LENGTH OF GRACILARIA VERRUCOSA SEAWEED CULTIVATED WITH POLYCULTURE SYSTEM OF VANNAMEI SHRIMP, MILKFISH AND SEAWEED**

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### **ABSTRACT**

Cultivation activities with a polyculture system are an alternative to improve the water quality of water and benefit from more efficient land use to increase fish production in aquaculture ponds. *Gracilaria verrucosa* seaweed is an agarose producer, which has advantages in the food and non-food sector and has significant economic value. Density is a limiting factor and a determinant of a cultivation activity; with the right thickness, it will produce optimal production. This research has the objective of examining the proper density of polyculture commodities to stimulate optimal growth of Seaweed *G. verrucosa*. The research method used a Completely Randomized Design (CRD) with three treatments and three replications. Treatment A: Milkfish, Shrimp 10 tails/m<sup>2</sup>, and Seaweed 250 g/m<sup>2</sup>, Treatment B: Milkfish, Shrimp 20 tails/m<sup>2</sup> and Seaweed 500 g/m<sup>2</sup>, Treatment C: Milkfish, Shrimp 30 tails/ m<sup>2</sup> and Seaweed 1000 g/m<sup>2</sup>. The variables used in this study were the absolute growth length of *G. verrucosa* seaweed, water quality, and soil redox. The results showed that the best growth in treatment B was 0.87 cm absolute vertical Length and 0.83 cm absolute horizontal Length. With a range of water quality during the study were temperature (29.2 - 32.8oC), pH (6.54 - 8), Dissolved Oxygen (1.1, - 3.4 ppm), salinity (1 - 3 ppt), and water brightness (24 - 55 cm). The range of soil redox values during the study was (-42 mV - 352 mV).

**Keywords: water quality, gracilaria verrucosa seaweed, polyculture system, vannamei shrimp, milkfish and seaweed**

**PROTEIN PROFILE ANALYSIS OF AFRICAN CATFISH CLARIAS GARIEPINUS  
STRAIN DUMBO WITHOUT PECTORAL FINS ISOLATED FROM EYE  
ORGANES USING SDS-PAGE**

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**ABSTRACT**

This study aims to investigate the protein profile of catfish without pectoral fins by using SDS-PAGE and compare it with the normal fish. The samples of catfish strain dumbo without pectoral fins were collected from Manyar District, Gresik Regency, and East Java Province. Protein was extracted from the eye, and then analyzed by SDS-PAGE. The molecular weight was determined with Gel Doc EZ Imager BioRad in high intensity. There were 33 bands found in two groups, both those without pectoral fins and complete pectoral fins. A total of 22 bands of 33 bands were found in two groups, both fish without pectoral fins and complete pectoral fins however the band intensity between groups differs from the intensity of bands. The three bands with significantly different intensities (t-test,  $p < 0.05$ ) were ~ 54 kDa, ~ 40 kDa, ~ 38 kDa. Seven bands are found only in fish without pectoral fins (~ 73 kDa, ~ 70 kDa, ~ 63 kDa, ~ 53 kDa, ~ 48 kDa, ~ 42 kDa, and ~ 21 kDa), and three bands are found only in fish with complete pectoral fins (~ 58 kDa, ~ 55 kDa, ~ 32 kDa). This study demonstrated that some of the proteins were detected only in fish without pectoral fins, could be further explored for biochemical markers in future studies and the entry point for further studies about the loss of pectoral fins in finfish

## **GUT BACTERIA COMMUNITY OF THE MILKFISH (CHANOS CHANOS FORSKAL.) IN GRESIK, EAST JAVA PROVINCE**

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### **ABSTRACT**

Milkfish is the important commodity of aquaculture in East Java. Based on data from Gresik District Office in 2018, fresh milkfish in Gresik is about 88.410 tons. Milkfish in Gresik is cultured in traditional polyculture ponds, and the problem is low productivity. Fishpond area in Gresik is in sub-district Sidayu, Bungah, Ujung Pangkah, and Panceng. The water for aquaculture is from the sea, Bengawan Solo river, Kali Lamong river, and groundwater. Uncontrolled exploitation ponds and exceed its naturally carrying capacity resulting in ponds damages and cause on decreasing productivity. The technology of fish culture became an alternatif solution to the ponds damages. The use of in situ bacteria as probiotics can repair the soil and water and improve the growth and immunity of fish. Studying the community of the fish bacteria, especially gut bacteria, can be the basic science of developing probiotic technology in aquaculture. Research use Microbact identification kits 24A and 24B to identify the biochemical characteristics. The result found seventy bacteria, that is. The data observed is a morphological colony, cells, Gram staining, spore staining, catalase production, and motility. Further research is needed to study the potential probiotic of these bacteria.

**Keywords: gut bacteria, community, milkfish**

**BIODIVERSITY OF THE INTESTINAL MICROBES OF NILE TILAPIA  
(OREOCHROMIS NILOTICUS) IN GRESIK,  
EAST JAVA PROVINCE**

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**ABSTRACT**

Oreochromis niloticus became one of the leading freshwater aquaculture commodities established by the Ministry of Maritime Affairs and Fisheries in early 2020 with export volumes increasing from February to March 2020 by 15.37%. At the beginning of 2020, they also released tilapia culture with a biofloc system that has several advantages, and it was the more efficient use of water, environmentally friendly because it does not cause toxic and odorous waste and faster growth. The principle of tilapia cultivation in the biofloc system is the use of microorganism culture; it's bacteria, yeast and microalgae. The use of biofloc in aquaculture is to break down leftover food and fish droppings into non-toxic compounds and support the digestion process of fish food. Bacteria that good to be used in biofloc are indigenous bacteria both from the digestive tract of fish and aquaculture water. For this reason, this study aims to explore bacteria from the gastrointestinal tract of tilapia that have the potential to be developed as probiotics. From the research, three bacterial species identified as Nitrosococcus oceanus (NL4), Vibrio alginolyticus (NL5) dan Bacillus amyloliquefaciens (NL6). Further research is needed to study the potential of these bacteria as probiotics.

**Keywords: biodiversity, intestinal microbes, nile tilapia**

## **SOCIAL SCIENCE AND HUMANIORA**

### **MENTAL LANDSCAPE, AND SOCIAL ISSUES: CASE STUDY OF RINDU KAMI PADA-MU**

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#### **ABSTRACT**

Although Jakarta seems to be the most favorable setting for Indonesian films, most Jakarta films are not about the city or its people, but rather about a large town with no name (Jufri (eds.) 1992: 23). Asrul Sani highlights the importance of showing physical pictures such as prominent buildings and adequate clothing, and a mental landscape. In Andre Bazin's term, the mental landscape shows the "spiritual vitality" of one city on-screen, which construes specific indications referring to that particular city.

**Keywords: mental landscape, social issues, case study, rindu kami pada-mu**