



PROGRAM BOOK

**Toward a Sustainable Future
for Interdisciplinary Synergy of
Education, Technology, and
Social Science**

**November 1st, 2022
LP2M UIN Maulana Malik
Ibrahim Malang**



PREFACE

The world is facing a new pandemic in 2020 that causes many changes in people's life. Almost all fields have been affected by it. That is why the integration of multidisciplinary studies is needed to solve the problem so that humans can continue to live well by adapting to the new normal. Acceleration and expansion offered by information technology have developed in such a way that it affects human existence and how to do things in ways that were not thought of before. The progress implies that many of the existing understandings, social practices and norms are in a position of necessity to contest, adapt, and even change. If not, then we will miss many things both opportunities and roles. Furthermore, if this development is not adequately anticipated, we may not only fail to anticipate contemporary challenges but also fail to understand the complexity of reality. In the field of scientific studies, the above phenomena have received numerous and varied responses from many circles. In relation to the relationship between religion, science, and technology, many scientific studies have been conducted as richly as possible, and have produced interesting findings. In acknowledgement of the pressures between science and religion, and as an inquiry about progressively enters value-laden areas, propositions have been made for researchers to lock in with other communities on the moral, lawful, and social suggestions of science and innovations and for the 'public voice' to be brought into the developmental stages of decision-making.

LP2M UIN Maulana Malik Ibrahim Malang is pleased to announce that it will be hosting the 3rd International Conference on Engineering, Technology, and Social Science (ICONETOS) 2022 at 1 November 2022 via online video conference. This international level conference its aim to be more specific in the development and cutting-edge papers related to Engineering, Technology, and Social Sciences.

The main goal of the ICONETOS 2022 is to provide an opportunity for academicians and professionals from various Engineering, Technology, and Social Science related fields from all over the world to come together and learn from each other. An additional goal of the conference is to provide a place for



academicians and professionals with cross-disciplinary interests related to Engineering, Technology, and Social Science to meet and interact with members inside and outside their own disciplines.

ICONETOS 2022 aims to be a premier venue for researchers and industry practitioners to share their new ideas, original research results and practical development from Engineering, Technology, and Social Science. All accepted conference papers will be submitted for inclusion into a reputable publisher.

CONFERENCE SUB THEME

Social and Psychological Implication of Post Pandemic

Current Paradigm in Science and technology

Religious Moderation for Human Capital Development

Post Pandemic Strategies for Economic Recovery

Industry and Engineering in Herbal and Halal Products

Transformative STEAM Education for Sustainable Development

KEYNOTE SPEAKERS



Prof Arndt Graf

**Gothe-Universitat Frankfurt am
Main, Germany**



Prof. Taufik

**California Polytechnic State
University, USA**



Dr. Ahmad Ginanjar Sya'ban

**Universitas Nhdlatul Ulama
Indonesia**



Prof. Dr. Ibnor Azli Ibrahim

**Universitas Islam Sultan Syarif Ali,
Brunei Darussalam**



Bahrul Hayat, Ph.D

**Universitas Islam International
Indonesia**



Peter Charles Sinclair Taylor, Ph.D

Murdoch University, Australia



Valeria Saladino, Ph.D.

**University of Cassino and
Southern Lazio, Italy**



Prof. Roihatul Mutiah

**Universitas Islam Negeri
Maulana Malik Ibrahim**



ICONETOS 2022 TIMETABLE

**All agendas are in UTC +07:00 (Western Indonesia), please adjust to your local time*

No	Time	Agenda	Venue
1.	08.00 – 08.30	Opening ceremony: 1. Opening (MC: Whida Rositama) 2. Quran Recitation (Karin) 3. Singing Indonesian National Anthem (Mrs. Ganis) 4. Gita Swara Maliki Choir: National Songs 5. ICONETOS 2022 Chairman's Speech (M. Anwar Firdaosi) 6. The Head of LP2M's Speech (Prof. Dr. Agus Maimun, M.Pd) 7. Rector's Speech (Prof. Dr. H. M. Zainuddin, MA) 8. Pray (Saiful Mustofa) 9. Gita Swara Maliki Choir: Folksong 10. Closing	Home Theatre Humaniora
2.	08.30 – 10.00	Plenary Session I (M. Yahya, MA, PhD): 1. Prof. Taufik 2. Prof. Peter Charles Taylor 3. Prof. Bahrul Hayat	Home Theatre Humaniora
3.	10.00 – 11.30	Plenary Session II (Drs. Cecep Rustana, BSc. (Hons), PhD): 1. Prof. Dr. Roihatul Mutiah, Sf., M.Kes., Apt. 2. Prof. Dr. Iknor Azli Ibrahim 3. Dr. Ahmad Ginanjar Sya'ban	Home Theatre Humaniora
4.	11.30 – 12.30	BREAK	
5.	12.30 – 14.00	Parallel Session I	
6.	14.00 – 15.00	Plenary Session III (Dr. Hj. Istiadah, MA): 1. Valeria Saladino, Ph.D. 2. Prof. Dr. Arndt Graf	Ruang Sidang Lantai 3
7.	15.00 – 16.30	Parallel Session II	
8.	16.30	Closing Speech (Ahmad Abtokhi, M.Pd)	Ruang Sidang Lantai 3



**PARALLEL SESSION
 ONLINE**

Meeting link: <https://tinyurl.com/iconetos2022>

ROOM 1:

Subtheme: Social and Psychological Implication of Post Pandemic

Time: 12.30-14.00

Moderator: Deny Efita Nur Rakhmawati, M.Pd

NO	TIME	PRESENTERS	TITLE
1	12.30-12.45	Esy Nur Aisyah	Measuring Female Leadership Competencies of SMEs
2	12.45-13.00	Nihayatu Aslamatis Solekah	Understanding Muslim Friendly Destination Attribute towards Environmentally Sustainable Behavior
3	13.00-13.15	Nasrulloh, Muhammad Nuruddin, Muhammad Handika Suryanto	The Role of the Office of Religious Affairs in Minimizing Cases of Underage Marriage During and After the Covid-19 Pandemic
4	13.15-13.30	Nizlel Huda	The Effect of the Application of Problem-Based Learning and Discovery-Based Learning Models on Student's Metacognitive Ability Based on Self-Efficacy in Mathematics Problem Solving
5	13.30-13.45	I'اناتut Tazkiya, Rizky Amalia Putri, Nasrulloh	Transexual Genitoplasty Problems Psychological and Fikih Scales

ROOM 1:

Subtheme:

Social and Psychological Implication of Post Pandemic
 Religious Moderation for Human Capital Development

Time: 15.00-16.30

Moderator: Deny Efita Nur Rakhmawati, M.Pd

NO	TIME	PRESENTERS	TITLE
1	15.00-15.15	Alfan Nurahida	The Role of Knowledge and Religiosity in Influencing Interest in Cash Waqf of Muslim Community in Kediri Regency



2	15.15-15.30	Waluyo Satrio Adji; Abdul Bashith; Lingga Saniman Derajat.	Development Of Multimedia Interactive Learning Media Using Articulate Storyline 3 On Social Studies Themes at Primary School
3	15.30-15.45	Lita Sabela, Darmawati, Kokom Komariah	Efektivitas Penyaluran Dana Zakat Produktif oleh Badan Amil Zakat Nasional Provinsi Kalimantan Timur Dalam Meningkatkan Perekonomian Mustahiq Kota Samarinda Pada Masa Pandemi Covid-19 (Tahun 2020-2021)
4	15.45-16.00	Nasrulloh, Ahmad Muhammad Sa'dul Kholqi, siti ZUlaikha, Faridatus Syuhada, Muhammad Handika Suryanto, Wirayudha Mahendra	Hadith Interpretation Of Religious Moderation Among Students And Its Implications For The Radicalization Inversion Movement At UIN Jakarta
5	16.00-16.15	Mundi Rahayu	The Discourse of Religious Moderation Represented in Hanan Attaki's YouTube Videos

ROOM 2:

Subtheme: Current Paradigm in Science and Technology

Time: 12.30-14.00

Moderator: Angga Dwi Mulyanto, M.Si

NO	TIME	PRESENTERS	TITLE
1	12.30-12.45	Yunin Hidayati	THE THREAT OF BATIK WASTE: ACTIVATED CHARCOAL AS AN ALTERNATIVE FOR WASTE PROCESSING OF BATIK TANJUNG BUMI MADURA
2	12.45-13.00	Wiwis S, Retno I, Dewi A	Test Of Active Carbon Adsorption From Cassava (Manihot Utilissima)Peels Against Dyes
3	13.00-13.15	Lutfiyatul Hasanah	Synthesis Of Schiff Base Compounds From 4-Formilpyridine And P-Anisidina Using Sonication Method As Antibacterial
4	13.15-13.30	TYAS NYONITA PUNJUNGSARI, M.Sc.	identification SNP +45 of the ADIPOQ Gene on Type 2 Diabetes Mellitus (T2DM)
5	13.30-13.45	Rusli, EVi Susanti, Absul Basid, Asni Furaida	Application of The Resistivity Method for Arceological Investigation of Ngawonggo Malang Indonesia
6	13.45-14.00	Elok Kamilah Hayati	Metabolite Profiling of Acalypha indica Linn Extract Based Diffrent Altitude using UPLC-Q-Orbitrap HRMS



ROOM 2:

Subtheme: Current Paradigm in Science and Technology

Time: 15.00-16.30

Moderator: Angga Dwi Mulyanto, M.Pd

NO	TIME	PRESENTERS	TITLE
1	15.00-15.15	Fani Fariedah	Cultivation Potential of Varuna litterata
2	15.15-15.30	Dita Kesuma Dewi	Evaluation of the performance of the Corrugated Plate Interceptor on the WWTP system of the Cepu oil refinery, West Java, Indonesia
3	15.30-15.45	Siti Fauziah	Green synthetic Hydrogel Moringa oleifera Lamk. as an edible coating for apples
4	15.45-16.00	Ema Fitriana	Antibacterial activity of Staphylococcus aureus hydrogel Moringa oleifera Leaf Extract and its potential as a skin care ingredient
5	16.00-16.15	Hafiz Tauhid	Evaluation of the performance of the WWTP system at the beef cattle farm in LOLIT SAPI GRATI PASURUAN
6	16.15-16.20	Saidun Fiddaroini	Application of Moringa Leaves (Moringa oleifera) in Liquid Organic Fertilizer for Red Spinach (Amaranthus tricolor L) Plant Growth

ROOM 3:

Subtheme: Post Pandemic Strategies for Economic Recovery

Time: 12.30-14.00

Moderator: Rois Imron Rosi, M.Pd

NO	TIME	PRESENTERS	TITLE
1	12.30-12.45	Guntur Kusuma Wardana, Sonia Ainun Masruroh	Social Economics
2	12.45-13.00	Lita Sabela, Darmawati, Kokom Komariah	Efektivitas Penyaluran Dana Zakat Oleh Badan Amil Zakat Nasional Provinsi Kalimantan Timur dalam Upaya Meningkatkan Perekonomian Mustahiq Kota Samarinda pada Masa Pandemi Covid-19
3	13.00-13.15	Titis Miranti	Islamic bank sustainability: How it Relates to Customer-Centric and Islamic Bank Governance?
4	13.15-13.30	Maretha Ika Prajawati	Investment Decisions as Female Workers During Post Pandemic
5	13.30-13.45	Burhanuddin Susamto	ISLAMIC LAW REVIEW ON FINTECH P2P LENDING, REGULATIONS AND ITS INSTITUTIONS IN INDONESIA



ROOM 3:

Subtheme: Industry and Engineering in Herbal and Halal Products

Time: 15.00-16.30

Moderator: Rois Imron Rosi, M.Pd

NO	TIME	PRESENTERS	TITLE
1	15.00-15.20	Imam Tazi	LINEAR DISCRIMINANT ANALYSIS (LDA) AND PARTIAL LEAST SQUARE (PLS) OF CHEMOMETRIC IN MIXTURE OF LARD AND PALM OIL-BASED ON FTIR-SPECTROSCOPY
2	15.20-15.40	Imam Cholissodin	Optimization of Drug Design Composition by Hybrid Islamic and Evolutionary Medicine for Covid-19 and Its New Variants Using Geometric Time Variants Extreme Genetic Algorithm
3	15.40-16.00	Zainabur Rahmah	PREVENTION OF CYTOADHERENCE AND HEART CELL HYPOXIA OF BALB/C MICES INFECTED WITH Plasmodium berghei WITH THERAPY OF PARE (Momordica charantia L)

ROOM 4:

Subtheme: Transformative STEAM Education for Sustainable Development

Time: 12.30-14.00

Moderator: Iffatun Nida, M.Pd

NO	TIME	PRESENTERS	TITLE
1	12.30-12.45	Rahmat Aziz	Teaching and Learning Strategies of Higher Education in developing Student Creativity
2	12.45-13.00	IFFAT MAIMUNAH, ARINA HAQUE, WILDANA WARGADINATA	Hybrid Arabic Learning Based On Constructivism Theory For Higher Education
3	13.00-13.15	Danial Hilmi	Implementation Model of Independent Learning on Arabic Learning in Higher Education
4	13.15-13.30	Khuzaimah, Umi Machmudah, Zakiyah Arifa	The Effectiveness Book Developmepnt of 4C-Based for Qawaid Nahwiyah Learning in Pesantren Salaf
5	13.30-13.45	Siti Sujatini	Creative Economy Development Of Sustainable City Development Communities Based On Penta Helix Model



**PARALLEL SESSION
 OFFLINE**

ROOM 1:

Subtheme:

Social and Psychological Implication of Post Pandemic
 Religious Moderation for Human Capital Development

Location: Ruang sidang Rektorat lantai 3

Time: 12.30-14.00

Moderator: Dr. Galuh Nur Rohmah

NO	TIME	PRESENTERS	TITLE
1	12.30-12.45	Esa Nur Wahyuni	Children's Self-Esteem Crisis During Post-Pandemic in Indonesia
2	12.45-13.00	Lina Hanifiyah, Ulil Fitriyah, Galuh Nur Rohmah	CONTEXTUALIZING THE INTEGRATION OF ISLAMIC VALUES THROUGH ENGLISH MODULE FOR ISLAMIC JUNIOR HIIGH SCHOOL
3	13.00-13.15	Kholilah	Sentiment and Stock Return Connectedness: Evidence from Indonesian Covid-19 Pandemic Trends
4	13.15-13.30	Istiadah, Aprilia Mega Rosdiana, Asni Furaida	PREPARING FOR A STRONG MARRIAGE THROUGH YOUTH PARTICIPATORY ACTION RESEARCH: A CASE STUDY OF MAKING PRE-MARITAL EDUCATION PODCAST
5	13.30-13.45	Ermita Zakiyah	Javanese Islamic Moderation of Sunan Kalijogo, Harmonization of Islamic and Javanese Teachings (Aggregation of Culture and Ideology)

ROOM 1:

Subtheme: Current Paradigm in Science and Technology

Location: Ruang sidang Rektorat lantai 3

Time: 15.00-16.30

Moderator: Hisyam Fahmi, M.Kom

NO	TIME	PRESENTERS	TITLE
1	15.00-15.15	Muhammad Taufiqi	Two Stages One Qubit Quantum Teleportation via An Arbitrary Entangled Two Qubits Quantum Channel



2	15.15-15.30	Totok Chamidy	The Influence of Internal and External Factors on Learning Achievement using Multiple Linear Regression Analysis
3	15.30-15.45	Ifa Sarifatul H	The Dynamic Analysis of the COVID-19 Spread Model in the SIHCR Population with Time Delay
4	15.45-16.00	ria dhea layla n.k	Clustering of COVID-19 Provinces in Indonesia using Fuzzy Means Cluster Methods
5	16.00-16.15	Nurul Istiqomah	Digitalization of Recitation Kitab Kuning at PP. As-Sa'idiyyah 2 Bahrul Ulum Tambak Beras Jombang
6	16.15-16.30	Qomi Akit Jauhari	ANALISA TEKS MAHARAH QIRAAH MELALUI PEMARKAH KOHESI

ROOM 2:

Subtheme: Current Paradigm in Science and Technology

Location: LPM

Time: 12.30-14.00

Moderator: Dr. Yulia Eka Putrie

NO	TIME	PRESENTERS	TITLE
1	12.30-12.45	Afifah Dzaky Bahiroh	KENYAMANAN THERMAL PADA RUANG DENGAN MATERIAL KACA
2	12.45-13.00	UFAIRAH ABIDAH	ANALISIS TINGKAT KEBISINGAN DI LINGKUNGAN GEDUNG UIN MAULANA MALIK IBRAHIM MALANG
3	13.00-13.15	Zidny Zayn Nauvaani	IDENTIFIKASI INTENSITAS CAHAYA ALAMI DI RUANG LANTAI 2 PERPUSTAKAAN UIN MAULANA MALIK IBRAHIM MALANG
4	13.15-13.30	Shaffa Bella Pricilia, Zhafira Amalia Hanun, Muchamad Mukholadun Kafafah	Perbandingan Pengaruh Bentuk Denah dan Orientasi Bangunan terhadap Intensitas Pencahayaan Alami pada Bangunan Sekolah
5	13.30-13.45	Ihya Husni Muzakki, Syiva Mafinov, Nafilatul Hasanah	redesain sistem pencahayaan studi 7 arsitektur uin malang
6	13.45-14.00	Fani Farisa, Muhammmad Hakam Wildan Nasrullah, Nadhifah Zunairoh	Lighting Analysis in Studio 6 Room in the Department of Architectural Engineering UIN Maulana Malik Ibrahim Malang Using the Dialux Evo Application 10.1



ROOM 2:

Subtheme: Current Paradigm in Science and Technology

Location: LPM

Time: 15.00-16.30

Moderator: Dr. Yulia Eka Putrie

NO	TIME	PRESENTERS	TITLE
1	15.00-15.15	Fahad Fahudi	Perbandingan Pencahayaan Masjid Tarbiyah dan Masjid Ulul Al bab Universitas Negeri Malang
2	15.15-15.30	Prihandini, Ali Ridho Jaelani, Bagus Setyo Ramadhani	KO.BOY CAFE EXTERIOR DESIGN RECOMMENDATIONS BASED ON THERMAL COMFORT OF OUTDOOR AND SEMI OUTDOOR SPACES
3	15.30-15.45	Nur Laily Azizah	Dorms and Covid-19: Resilient Architecture Approach to Darul Ulum Islamic Boarding School Dormitory Design
4	15.45-16.00	Ais Fithratun Nazhifah, Rama Dirgi, M. Saiful Anam	Rekomendasi Desain Bukaam Terhadap Optimalisasi Pencahayaan Alami Masjid Kampus
5	16.00-16.15	Nurlina Yuliandari Sholikhah, Shafira Darmayanti, M. Saiful Anam	Analisis Pencahayaan Alami pada Ruang Kuliah Studio 5 Fakultas Sains dan Teknologi Universitas Islam Negeri Mulana Malik Ibrahim Malang
6	16.15-16.30	Ayu Firnanda Amilia	LIGHTING ANALYSIS IN STUDIO ROOM 4 FACULTY OF SCIENCE AND TECHNOLOGY ARCHITECTURE ENGINEERING PROGRAM



ROOM 3:

Subtheme:

Post Pandemic Strategies for Economic Recovery

Transformative STEAM Education for Sustainable Development

Location: Ruang SPI

Time: 12.30-14.00

Moderator: Dr. Umaiatus Syarifah, MA

NO	TIME	PRESENTERS	TITLE
1	12.30-12.45	Eko Suprayitno	Zakat, Infaq, Sadaqah, and Wakaf (Ziswaf) Funds and The Regional Recovery Post-Disaster Eruption of Mount Semeru
2	12.45-13.00	Sri Dwi Estiningrum, Sri Eka Aastutiningsih, Siti Aisah	Marketing Strategy To Increase Sales Post-Covid-19 Pandemic In Micro, Small Business Intermediate
3	13.00-13.15	Dwi Sulistiani	The National Economic Outlook During COVID-19: Government And SMEs Strategies To Cope With The Outbreak
4	13.15-13.30	Muassomah	Arabic Learning Challenges: Student Experiences in Islamic Higher Education
5	13.30-13.45	Yuniarti Hidayah Suyoso Putra	Implementation Design of Merdeka Belajar Kampus Merdeka
6	13.45-14.00	Ahmad Abtokhi	Evaluation of the ability of national KSM participants in solving Physics exploration questions



ABSTRACT

Social and Psychological Implication of Post Pandemic



Measuring Female Leadership Competencies of SMEs

Esy Nur Aisyah^{1*}, Maretha Ika Prajawati², Setiani³

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ABSTRACT

SMEs' success, performance and growth are highly dependent on the competence of entrepreneurs. Competency theory is based on studying successful leaders by researching their behaviour, attitudes, and skills into measurable aspects and looking for ways to bring them together to create individuals who demonstrate superior performance. Research related to competence is motivated by the aspiration to achieve excellent performance and business success. Female Leadership Competencies are a performance of a woman's competence in leading a business. This study aims to evaluate the value of the validity and reliability of the instrument measuring the Female Leadership Competencies based on the concept of Cong & Thu. The dimensions used as a reference in measuring tools consist of Strategic Visions, Operations Management, Professional Knowledge, Hands-on Experience, and Relationship Building in running a business. The respondents of this study were 100 women entrepreneurs in Batu City; the process used the Slovin technique. This instrument was prepared using a Likert scale with five scales and Confirmatory Factor Analysis (CFA) techniques. The analysis showed that the measurement of Female Leadership Competencies was valid and reliable, with a Cronbach alpha score of 0.894.

Keywords: Female Leadership Competencies; Reliability, SMEs; Validity



Understanding Muslim Friendly Destination Attribute towards Environmentally Sustainable Behavior

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ABSTRACT

This study aimed to examine the effect of Muslim-Friendly Destination Attribute (MFDA) on Environmentally Sustainable behavior (ESTB) and the moderating role of MFDA on the effect of Religious Values (RGV) on ESTB. This research employs a descriptive quantitative method. It involved 313 respondents by using purposive sampling of Muslim travelers who visited Muslim-friendly tourist destinations around Malang Raya. Data were analyzed by structural model assessment with Partial Least Square (PLS) analysis method. The results indicated that Muslim Friendly Destination Attribute (MFDA) and Environmental Attitude (EA) affect ESTB, yet RGV exerts no direct effect on ESTB. RGV affects ESTB through EA. These results suggested that the government and tourism companies develop Muslim-friendly tourist facilities in the tourist destinations, such as more comfortable worship facilities and infrastructure. Besides, it is advisable that they concern a better sanitation around the natural tourist destination.

Keywords: Muslim-friendly destination attribute, Religious value, Environmental attitude, Environmentally sustainable tourist behavior



The Role of the Office of Religious Affairs in Minimizing Cases of Underage Marriage During and After the Covid-19 Pandemic

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ABSTRACT

Underage marriage is a marital problem that still occurs in Dau County. Coupled with the Covid-19 pandemic that has hit, there is a dynamic in the practice of underage marriage in Dau County. The Office of Religious Affairs as an institution of marriage ministry and guidance is very understanding of the age limit arrangements in marriage. The formulation of the problem in this study is; What are the factors behind underage marriage during the Covid-19 pandemic in Dau County? And what is the role of the Dau Regency Religious Service in minimizing cases of underage marriage during the Covid-19 pandemic? This research uses empirical research type methods and qualitative approaches. For how to obtain data in the field through interviews and documentation. Meanwhile, data processing techniques use data inspection techniques, classification, verification, analysis, and conclusions. The results of this study show that the factors behind underage marriage at the Dau Regency Religious Office during the Covid-19 pandemic are socio-cultural in the form of rigid mindsets and habits of the community, religious factors with parents'; concerns about the behavior of their children's relationships, freedom of social factors that lead to pregnancy outside of marriage, economic factors under the pretext of being a co-worker as a farmer, and lack of education. So that all these factors become the basis for legalizing underage marriage through the marriage dispensation process. The role of the Dau Regency Religious Service in minimizing cases of underage marriage during the Covid-19 pandemic is the role of the head and Head of the Religious Service in conducting socialization and counseling, tightening marriage registration, and establishing sectoral cooperation. The role of religious instructors is by coming to forums in the community and advising the bride and groom when they are single. The last is the role of the village apparatus by educating the community through counseling and advice on the postponement of underage marriages. This research gives the message that counseling and mentoring activities to the community need to continue to be carried out with models and concepts that are more modern and by the existing conditions in society.

Keywords: Role, Office of Religious Affairs, Underage Marriage, Covid-19 Pandemic



THE EFFECT OF THE APPLICATION OF PROBLEM-BASED LEARNING AND DISCOVERY-BASED LEARNING MODELS ON STUDENT'S METACOGNITIVE ABILITY BASED ON SELF-EFFICACY IN MATHEMATICS PROBLEM SOLVING

Nizlel Huda¹ and Jefri Marzal¹

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ABSTRACT

Problem-solving is an essential basic skill which requires metacognitive abilities. In fact, there are many students who experience metacognitive failure in solving mathematical problems. This study aims to discover the effect of applying Problem-Based Learning, Discovery-Based Learning and Conventional Learning models on students' metacognitive abilities based on self-efficacy in solving mathematical problems. This research was conducted at the Mathematics Education Study Program, Jambi University. The population of this study were all Mathematics Education students who attended Discrete Mathematics lectures for the 2022/2023 academic year, and all members of the population were sampled in this study. Problem-Based Learning, Discovery-Based Learning and Conventional learning model became the independent variables, while the dependent variable was the students' metacognitive ability in solving mathematical problems. The research instruments were self-efficacy questionnaires, pre-test questions, learning model implementation sheets and post-test questions which had been validated. This research is a quasi-experimental research with a randomized block design and applied Two-Way ANOVA to analyse the data. The results showed that there was an effect of Problem-Based Learning, Discovery-Based Learning and Conventional learning models on students' metacognitive abilities based on self-efficacy in solving mathematical problems.

**Keywords: Metacognitive ability, Problem Based Learning, Discovery-Based Learning
Conventional Learning, Self-efficacy**



Transsexual Genitoplasty Problems Psychological and Fikih Scales

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ABSTRACT

Transsexual status in Indonesia is still not legalized. Supported by the absence of laws that specifically regulate the change of genitals. This becomes a polemic dilemma for transsexuals, first of all, the existence of a hostile social environment. Poor social conditions have an impact on mental health problems, such as depression, anxiety, and post-traumatic stress. Transsexual is a psychological symptom experienced by a person of one sex, which is biologically different from the specified sex. Changing the genitals through this operation is called genitoplasty. The focus of this research lies in the form of genitoplasty of individuals who have normal genitalia which is then analyzed for factors from the perspective of psychology and the law from the perspective of fiqh. The research method used is qualitative-normative, through psychology and fiqh approaches. Primary data sources are in the form of journals and the Koran Surah an-Nisa verse 119 and Surat a verse 119. The results of this study are that three psychological factors are the most widely behind genital surgery in transsexuals (FtM), namely 1) identity confirmation 2) ability to perform sexual intercourse and 3) the urge to urinate standing up. According to Islamic law, it is haram because 1) it changes Allah, 3) resembles the opposite sex, and 3) poses a greater danger. Alternatives that can be used to overcome this are aversion therapy, image display, reality counseling, and religious therapy.

Keywords: Fikih, Genitoplasty, Psychology, Transsexual.



Children's Self-Esteem Crisis During Post-Pandemic in Indonesia

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ABSTRACT

Although the pandemic is starting to subside, the impact still leaves problems threatening children's development. This study aims to explain that in the transition period to the new normal, children experience impaired self-esteem development as an important element that supports child development. The study relies on an empirical approach through self-report data in the form of bibliotherapy from 15 children in grades 5 and 6 of elementary school about their experiences during the covid pandemic and the new normal period. Then, the data are analyzed qualitatively. The study results showed that children's self-esteem experienced a crisis through three conditions: the child's self-image, which tends to be negative about himself. The inability of children to build friendships is shown by their failure to develop social interactions with their peers. The unhappiness experienced throughout Covid-19 is that children have feelings of boredom, stress, and dissatisfaction. The condition indicates that children lose confidence which threatens the development of self-esteem. Although the pandemic has decreased, life behavior during the Covid-19 pandemic can become a lifestyle in the future. This study suggests the need for attention from all parties, families, schools, and the wider community, so children's self-esteem growth is not constrained. So, this can support the formation of children's welfare as the transition from the pandemic to the new normal progress.

Keywords: Self-esteem, Children's well-being, Pandemic transition, Negative self-image, Stigmatization.



CONTEXTUALIZING THE INTEGRATION OF ISLAMIC VALUES THROUGH ENGLISH MODULE FOR ISLAMIC JUNIOR HIGH SCHOOL

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ABSTRACT

English class is very potential space to build students who are spiritually, intellectually, emotionally matured. Teaching is still seen as mechanical activity where the teacher is busy giving assignments, correcting and assessing. It also focuses on the surface learning not holistic/deep learning which makes teachers do not successfully raise other aspects beyond cognition. Connecting the English lesson to students' day-to-day lives is often fail. This research aims to develop a holistic-integrative English module. The results of this study are in the form of an integration learning matrix and learning module for grade 7 MTs semester 1. The matrix is developed by referring to KD and its themes stated in English textbooks. three zoom sessions were done between researchers and EFL teachers discussing the learning matrix and the module. The module, then, was developed in several stages, namely initial draft design, expert judgment, and try out. The learning matrix consist of the aspects: the integration, the guided learning strategies, and the independent learning strategies. The research reveals that the module is characterized by involving Islamic subjects, such as Aqidah Akhlak, Fiqh, and Tarekh Islam in the theme of English lessons. Guided learning strategies provide activities and media that invite students to make active connections between English and the Islamic dimension of students' daily lives. The module also facilitates students with independent learning which is very closely related to student life. The drawback that needs to be anticipated from this module is the evaluation system that has not been measured well. Further research is expected to produce an evaluation format for learning integration in English subjects.

Keywords: Contextualization, Integration of Islamic Values, EFL Teaching and Learning.



Sentiment and Stock Return Connectedness: Evidence from Indonesian Covid-19 Pandemic Trends

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ABSTRACT

The study aims to analyze the causality relationship of investor sentiment and stock returns during a pandemic. This research is important because the massive impact of the pandemic in various sectors has caused changes in investors' financial behavior, including an increase in covid 19 keyword searches and vaccines on google trends. The word vaccine was categorized as positive sentiment whereas the word covid 19 pandemic as negative sentiment. All data were obtained from google trend from January 2020 to December 2021. The stock return data from January 2020 to December 2021 were obtained from yahoo finance. This study used vector autoregressive to test the causality relationship of the two variables. There is a causality relationship between investor sentiment and stock returns because most investors are noise traders. Hence, their investment is categorized as a herding behavior where one investor prefers to follow the decisions made by other investors.

Keywords: Sentiment Investor, Stock Return, Google Search.



The Role of Knowledge and Religiosity in Influencing Interest in Cash Waqf of Muslim Community in Kediri Regency

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ABSTRACT

Kediri Regency has 1,500 waqf lands with an area of 100.74 Ha. Based on these data, it can be seen that the interest in land waqf of the people of Kediri Regency is quite high. This data can be used for the development of cash waqf which is easier and does not require large funds. But the realization of cash waqf in reality is still low and difficult to do. This study was conducted with the aim of empirically explaining the influence of knowledge and religiosity on the interest in endowments of the Muslim community in Kediri Regency. This study uses a quantitative approach. The population of this research is the Muslim community of Kediri Regency. The sample used was 104 respondents and questionnaires as a means of collecting data for respondents. The analytical method used in this study is Partial Least Square (PLS) with the outer model coefficient test, inner model, and hypothesis testing. The results show that knowledge has a significant positive effect on interest in cash waqf, religiosity has a positive and insignificant effect on interest in cash waqf.

Keywords: Knowledge, Religiosity, Money Waqf, Trust .



Development Of Multimedia Interactive Learning Media Using Articulate Storyline 3 On Social Studies Themes at Primary School

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ABSTRACT

This article provides an overview of the development of learning media using articulate storyline 3. The development of this media is based on the needs of the social studies learning process at the elementary school level, especially during online learning. The purpose of this research is to develop interactive media based on articulate storyline 3 to the learning interest of students. The subjects in this study were fifth grade elementary school students. The research method with R&D uses the ADDIE development model which has 5 stages, namely analysis, design, development, implementation and evaluation. Feasibility tests were also carried out in this study with the percentage of media experts and material experts being 96%, as well as user validation with a percentage of 86.8%. so that it can be seen if the articulate storyline 3 learning media for the social studies theme is proven to be practical.

Keywords: Development, Multimedia, Articulate Storyline, IPS Primary School



PREPARING FOR A STRONG MARRIAGE THROUGH YOUTH PARTICIPATORY ACTION RESEARCH: A CASE STUDY OF MAKING PRE-MARITAL EDUCATION PODCAST VIDEOS

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ABSTRACT

This research focuses on preventing marriage preparation through the creation of podcasts. So far, pre-marital ducation has always been given in offline classical meetings. Previous studies have shown that millennials and generation Z are easily bored with the classical of line education model. This research uses Participatory Action Research (YPAR) which enables youth empowerment that is oriented towards community leadership and civic engagement. YPAR is oriented towards developing the knowledge and skills of youth to analyze and criticize issues that are on the community's agenda to create social change. This research uses a qualitative approach with a case study method. Data collection techniques were carried out through participatory observation, in-depth interviews, and documentation studies. The results show that YPAR supports the formation of youth awareness of issues and public agendas (youth civic engagement) and youth engagement in achieving a shared vision (youth engagement). Nevertheless, attention to the participatory empowerment of youth is still a challenge in developing countries, including Indonesia. The participatory approach should not only be an ideal concept, but be implemented in innovative youth empowerment programs.

Keywords: Pre marital-education, Youth Participatory Action Research, video-podcast.



Efektivitas Penyaluran Dana Zakat Produktif oleh Badan Amil Zakat Nasional Provinsi Kalimantan Timur Dalam Meningkatkan Perekonomian Mustahiq Kota Samarinda Pada Masa Pandemi Covid-19 (Tahun 2020-2021)

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ABSTRACT

This research is based on the background that the Coronavirus Disease 2019 (Covid-19) pandemic has brought several impacts to the community, one of which is the economic impact. Many small business actors go bankrupt which makes their businesses close as well as kills people's income. To deal with this problem, the government provides several solutions, one of which is the National Amil Zakat Agency (BAZNAS) of East Kalimantan Province which provides productive zakat funds to mustahiq in the form of business capital in the form of cash or business equipment, with the aim of being able to improve the mustahiq economy during the pandemic. Covid-19. The purpose of this study was to determine whether the distribution of Productive Zakat funds at the National Amil Zakat Agency of East Kalimantan Province was effective or not in an effort to improve the mustahiq economy of Samarinda City during the Covid-19 pandemic. As well as knowing the effectiveness of the distribution of Productive Zakat funds at the National Amil Zakat Agency of East Kalimantan Province in an effort to improve the mustahiq economy of Samarinda City during the Covid-19 pandemic. The research method used in this research is a mixture of qualitative and quantitative research. By using Ni Wayan Budiani's theory related to effectiveness benchmarks, namely: Targeting accuracy, program planning, program socialization, program objectives, and program monitoring. Where researchers conducted interviews with mustahiq recipients of productive zakat funds or venture capital by BAZNAS Kaltim in 2020 and 2021 for qualitative methods, and used reports on the collection and distribution of productive zakat funds for quantitative methods. The result of this study is that the distribution of productive zakat funds by BAZNAS of East Kalimantan Province during the Covid-19 pandemic was not effective because one of the effectiveness indicators, namely the program objectives, was not fulfilled. The effectiveness of the distribution of productive zakat funds is also considered ineffective because the interpretation value of the distribution of funds is less than 45%, namely 20.79% in 2020 and 22.46% in 2021. However, the distribution of productive zakat funds has been effective in an effort to improve the mustahiq economy of Samarinda City. It can be seen that all mustahiq can improve their economy by continuing to develop their business, such as adding types of merchandise, updating their place of business, adding business equipment, increasing income and so on.

Keywords: Effectiveness, Productive Zakat, Badan Amil Zakat Nasional, Economic Improvement, Mustahiq, Covid-19.



ABSTRACT

Current Paradigm in Science and Technology



Two Stages One Qubit Quantum Teleportation via An Arbitrary Entangled Two Qubits Quantum Channel

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ABSTRACT

In this work, we consider two stages one qubit quantum teleportation protocol via an arbitrary entangled two qubits state. In the first stage, Alice use XOR gate and computational basis measurement, while for the second stage, Alice use Hadamard gate and another computational basis measurement. Alice sent measurement result to Bob via one classical bit each. As the result, we show that this teleportation can has unit fidelity if the channel used has non-zero two terms and maximally entangled. Then the protocol is applicable if the channel is one of four Bell's state.

Keywords: two stages, one qubit, quantum teleportation, two qubits channel



THE THREAT OF BATIK WASTE: ACTIVATED CHARCOAL AS AN ALTERNATIVE FOR WASTE PROCESSING OF BATIK TANJUNG BUMI MADURA

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ABSTRACT

The vast majority the batik industry produces batik waste containing synthetic dyes that is harmful to the environment. The batik industry is expanding in Indonesia and has an impact on economic growth and socio-cultural development. However, the development of batik industry also increases waste that has a detrimental impact on the environment, resulting in pollution. This also occurred in Tanjung Bumi, one of the centers of the batik industry on the island of Madura, Indonesia. This study aims to find an alternative technology for processing batik waste containing synthetic dyes. The use of activated charcoal which is easy to obtain, cheap, simple and effective in decomposing waste is projected to be an alternative, for craftsmen, to process batik waste. The results of the Cr content test showed that there was a decrease in Cr levels in batik wastewater after being given activated charcoal; there was a reduction in Cr levels up to 30.83 g/L after giving activated charcoal with various concentrations for 21 days. In addition, there was also a significant decrease in the conductivity value of batik waste after being treated with activated charcoal. These results indicate that activated charcoal can be used as an alternative for batik wastewater treatment. However, to get more optimal results, the use of activated charcoal for handling wastewater needs combination with other methods.

Keywords: batik waste, environmental pollution, textile waste parameters



Test Of Active Carbon Adsorption From Cassava (*Manihot Utilissima*)Peels Against Dyes

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ABSTRACT

Cassava peel is the leading waste generated by the cassava processing industry. One of the regulatory efforts is to use it as a raw material for activated Carbon to adsorb dyes. This study aims to determine the adsorption capacity of activated Carbon from cassava peel waste on yellow dye. Activated Carbon from cassava peel has been identified using FTIR. The results of FTIR characterization determined the absorption of functional groups O-H, C = C, C-H, and C-O, which indicated the presence of lignocellulose and hemicellulose content in the activated Carbon of cassava peel. The optimum mass measured in this study was 1 gram with an adsorption percentage of 59.474%. The optimum contact time measured in this study was 60 minutes, with a percentage of adsorption power of 82.526%. The optimum concentration of yellow dye measured in this study was 200 ppm with an adsorption percentage of 94,000%.

Keywords: Cassava peel, Activated Carbon, Dyes, Power Adsorption.



Synthesis Of Schiff Base Compounds From 4-Formilpyridine And *P*-Anisidina Using Sonication Method As Antibacterial

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ABSTRACT

Schiff base compounds are reported to have various biological activities, one of which is antibacterial. This study aims to determine the characterization of the Schiff base product with the sonication method and to determine its antibacterial activity. Schiff base products from 4-formylpyridine and *p*-anisidine were characterized using FTIR, KG-SM, and ¹H-NMR as well as antibacterial activity tests. The results of the characterization using FTIR produced a wave number of 1621 cm⁻¹ which was thought to be the absorption of the C=N group which was the target compound, and the KG-SM characterization showed the presence of the target compound for the synthesis of 4-methoxy-N-(pyridine-4-ylmethylene)aniline at *m/z* 212. Meanwhile, the ¹H-NMR characterization of the product showed the presence of a singlet proton imine signal at a chemical shift of 8.46 ppm (1H, s), as well as the presence of antibacterial activity that was effective in inhibiting bacterial growth at a concentration of 10,000 µg/mL.

Keywords: Schiff base, 4-Formylpyridine, *p*-Anisidine, Sonication Method, Antibacterial



The Influence of Internal and External Factors on Learning Achievement using Multiple Linear Regression Analysis

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ABSTRACT

This study presents an analysis of several factors related to student achievement who are studying in the Department of Informatics Engineering, Maulana Malik Ibrahim State Islamic University. The sample data comprised one hundred and eleven students in the second semester of Informatics Engineering. The sample represents 74% of the student population for the even semester of 2021. Instruments with internal and external factors made up of 76 statements were used to collect the data. The students were between the ages of 19 and 20. Internal factors directly related to students include health, intelligence, talents, interests, motivation, and learning methods. External factors analyzed include lecturers, other students, facilities, curriculum, extracurriculars, and achievement. Internal and external factors were analyzed using multiple linear regression. These two factors simultaneously affect student achievement. The variables of intelligence and talent are partially the internal characteristics that influence learning accomplishment. On the other hand, lecturers and curricular variables are partially external elements that predominate the influence on learning achievement.

Keywords: Internal factor, External factor, Multiple linear regression, Learning achievement.



Identification SNP +45 of the ADIPOQ Gene on Type 2 Diabetes Mellitus (T2DM)

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ABSTRACT

SNPs haplotype blocks can be used as genetic markers to trace particular diseases (means indirectly tracks the causative genes). One of the SNPs that affect disease is SNP positions 45 and 276. SNPs 45 and 276 in the APMI or ADIPOQ or Adiponectin that affect insulin production on T2DM patients. The aim of this research was to identify the presence of SNP 45 in patients with type 2 diabetes mellitus. Method of this research is descriptive exploration using type 2 diabetes mellitus patients in Gledug Village, Blitar Regency as specimen donors. Identification using DNA extraction, DNA Amplification, sequencing and bioinformatics analysis. The results of this project seven DNA extracted, the seven sequences have the same Qv20+ value as the sequence base pair, alignment analysis using blast, when compared with the adipoQ gene sequence with accession number NG_021140.1, it was found that the KT, SR and BP sequences had a 100% similarity level. Identification of candidate SNPs in the absence of the adenine nucleotide was found in the SR, KT, and ST sequences.

Keywords: ADIPOQ, SNPs, Type 2 Diabetes Mellitus, T2DM.



Application of The Resistivity Method for Archeological Investigation of Ngawonggo Malang Indonesia

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ABSTRACT

It is necessary to carry out further research to determine the mapping and distribution of buried archaeological objects in Ngawonggo Village, Tajinan, Malang Regency. The geoelectric resistivity dipole-dipole configuration method is one of the appropriate geophysical methods to be used to find the existence of buried archaeological objects. The study was conducted with four scattered tracks having a space of 1 meter in each track. The first track has a stretch of 64 meters and found site rocks at a depth of 0 - 2 meters. The second track has a stretch of 64 meters and archaeological rocks are found at a depth of 2 - 5 meters below ground level. On track three has a stretch of 32 meters and found archaeological rocks at a depth of 2-7 meters below the ground surface. While on track four with a stretch of 32 meters, no archaeological rocks were found.

Keywords: Geophysics; Resistivity; Dipole-dipole Configuration; Ngawonggo.



The Dynamic Analysis of the COVID-19 Spread Model in the SIHCR Population with Time Delay

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ABSTRACT

This study discusses the dynamic analysis of the COVID-19 spread model in the SIHCR population with time delay to represent the behavior of the spread of COVID-19 with time delay. The SIHCR model divides the human population into five subpopulations, namely Susceptible (S), Infected (I), Hospitalized (H), Critical (C), and Recovered (R). The dynamic analysis is carried out by determining the equilibrium point, the basic reproduction number (R_0), and stability analysis of the equilibrium point. The result of this study is two equilibrium points, namely the disease-free equilibrium point (E_0) and the endemic equilibrium point (E_1). Then the basic reproduction number (R_0) was calculated using the given parameters and produce the value $R_0 > 1$. The stability analysis can be obtained by linearization around the equilibrium points. The disease-free equilibrium point is unstable and the endemic equilibrium point is locally asymptotically stable. Next, simulation of the SIHCR model with and without time delay was carried out under disease-free and endemic conditions. Simulations are carried out using variations in the value of the delay time to determine the dynamic behavior of the model. In disease-free and endemic conditions, it shows differences in the dynamic behavior of the model. The smaller the delay time, the condition is almost the same as the SIHCR model without time delay towards stability. Meanwhile, the greater the delay time, the longer the SIHCR model leads to stability. So, it can be concluded that the time delay affects the stability of the SIHCR model.

Keywords: Mathematical Model of SIHCR, Dynamic Analysis, Basic Reproduction Number, Time Delay.



Clustering of COVID-19 Provinces in Indonesia using Fuzzy Means Cluster Methods

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ABSTRACT

COVID-19 is a contagious virus that has global pandemic. Indonesia has the highest infected cases of COVID-19 in South-East Asia. The aim of the research is classified provinces in Indonesia using Fuzzy Mean Cluster (FCM) based on positive cases, recovery cases, and death cases of COVID-19. The result using FCM is three clusters. First cluster that marked by red zone is DKI Jakarta, third cluster that marked by orange zone is West Java, Central Java, and East Java, second cluster that marked by yellow zone is other provinces in Indonesia. Validity of FCM using Partition Coefficient Index (PCI) is 95,36%. It means that using three clusters is the most optimal.

Keywords: COVID-19, Global pandemic, Fuzzy means clusters, Partition coefficient index.



Cultivation Potential of *Varuna litterata*

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ABSTRACT

Varuna litterata is a type of crustacean that occupies brackish waters to fresh waters. *Varuna litterata* will enter waters with a lower salinity than seawater when it enters the megalopa phase. *Varuna litterata* will grow up in brackish or fresh waters and will return to the sea when it is about to hatch its eggs. *Varuna litterata* can be found in some rivers that can still be affected by tides. *Varuna litterata* has been consumed by the public because it has a relatively affordable price. In addition to containing animal proteins, *Varuna litterata* also has medical values such as unsaturated fatty acids PUFA (*Varuna litterata*) which can reduce the incidence of coroner's heart disease, such as DHA (*Docosahexaenoic acid*) and EPA (*Eicosapentaenoic acid*) which are omega-3 fatty acids. *Varuna litterata* is also rich in chromium which can help insulin to metabolize sugar, so it is good for consumption for people with hyperglycemia.

Keywords: crustacea, cultivation, PUFA



Digitalization of Recitation Kitab Kuning at PP. As-Sa'idiyyah 2 Bahrul Ulum Tambak Beras Jombang

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ABSTRACT

Among pesantren, the Yellow Book (kitab kuning) has a role as a credible reference. The proof is the use of the yellow book (kitab kuning) from ancient times until now continues to grow to answer the problems of Muslims. The object of this research is the recitation of the yellow book which is routinely reviewed by the head of the pesantren, namely KH. Ahmad Hasan, M.Pd.I is the book of Tafsir Munir by Imam Nawawi and the Book of Ihya Ulumuddin by Imam al-Ghazali. This research is a type of field research. The method used is a qualitative method. The approach used is the digitization of da'wah. The result of this research is the showing of the yellow book (kitab kuning) recitation in PP. As-Sa'idiyyah 2 Bahrul Ulum began to be carried out on Youtube starting in 2014. This year, not many Islamic boarding schools have broadcast their book recitations through social media. PP. As-Sa'idiyyah 2 has started broadcasting his book recitation activities on Youtube. However, the sound and picture quality is still very limited. So that sometimes his voice cannot be heard by Youtube viewers. At that time there were no special technicians who mastered information technology and the tools used were also not as sophisticated as they are now. Streaming on Youtube is also not routinely carried out every day. The recitation of the yellow carnival at other Islamic boarding schools was widely broadcast through social media during Covid-19 around 2020, especially during the month of Ramadan. This digitization has an impact on the distance that can be cut by the applied information technology. Second, the number of people who want to take part in Abah's recitation is unlimited. Third, unlimited time for studying the recitation.

Keywords: digitalization; kitab kuning; PP. As-Sa'idiyyah 2 Bahrul Ulum.



ANALISA TEKS MAHARAH QIRAAH MELALUI PEMARKAH KOHESI

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ABSTRACT

Maharah qiraah merupakan salah satu maharah yang sangat penting dalam pembelajaran bahasa Arab. Dalam pembelajaran maharah qiraah terdapat proses kegiatan yang berupaya untuk menemukan informasi yang terkandung dalam teks. Pada umumnya teks dalam pembelajaran maharah qiraah ditulis berdasarkan tingkat pembelajar, agar bisa dibaca dan dipahami. Teks maharah qiraah juga harus sesuai dengan kaidah gramatikal (nahwu dan sharaf) agar ada kesesuaian dan keselarasan antar kalimat dalam teks tersebut. Untuk mengetahui bahwa dalam teks ada kesesuaian atau tidak, maka perlu analisa khusus. Salah satu piranti yang digunakan untuk menganalisa teks maharah qiraah adalah pemarkah kohesi.

Keywords:



Evaluation of the performance of the Corrugated Plate Interceptor on the WWTP system of the Cepu oil refinery, West Java, Indonesia

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ABSTRACT

The oil and gas industry are, of course, still very much needed, given the many benefits of processing oil and natural gas that can be used for daily activities. But despite all of its advantages, it cannot be denied that the oil and gas sector contributes significantly to environmental contamination because of the waste it generates. This study's objective is to assess the effectiveness of the corrugated plate interceptor in the West Java, Indonesia, oil refinery's WWTP system. The average values of pH, temperature, COD, BOD, total phenol content, and ammonia were used as evaluation criteria. Another research objective is to find out whether the test results have met the quality standards according to the Regulation of the State Minister for the Environment of the Republic of Indonesia. The results of the test were carried out in July 2021. The condition of the wastewater from the CEPU MIGAS WWTP system was pH 7.09, temperature 29.7 C, COD 93,248 mg/L, BOD 28,40525 mg/L, phenol content total of 0.0064 mg/L, ammonia content of 2.74 mg/L, and oil and fat content of 6.22 mg/L. The average test results have met the standards set in the Regulation of the State Minister for the Environment, so it is safe to dispose of them in the Bengawan Solo River. Thus, the performance of the Corrugated Plate Interceptor on the WWTP system of the Cepu oil refinery in West Java, Indonesia is still very good.

Keywords: Corrugated Plate Interceptor, wastewater treatment system

Green synthetic Hydrogel *Moringa oleifera* Lamk. as an edible coating for apples

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ABSTRACT

Green synthetic hydrogel from (*Moringa oleifera* Lamk) as an edible coating for apples In Indonesian culture, people are familiar with the plant known as *Moringa oleifera* Lamk. People are familiar with it as the leaves of the vegetable plant known as Moringa. The antioxidant-rich plant moringa oleivera is frequently utilized as a food source, an organic fertilizer for traditional medicines, and an edible coating. In this study, a carboxyl methylcellulose (CMC) gelling agent was used to create a hydrogel containing moringa leaf extract. In order to establish the morphology and topography of the hydrogel made from Moringa leaf extract and its suitability as an edible coating for Malang apples, the goal of this study was to identify the optimum gel formulation, antioxidant hydrogel. Extraction using sonication. Tests for alkaloids, flavonoids, saponins, tannins, steroids, and triterpenoids were performed on Moringa leaf extract. Various dosages of Moringa leaf extract are combined with the CMC gelling ingredient in a hydrogel composition. Utilize the DPPH method to assess the antioxidant capacity of Moringa leaf extract and hydrogel. Swelling, hydrogel geometry using an optical microscope, and surface morphology using X-Ray Scanning Electron Microscopy-Energy were the hydrogel characterizations (SEM-EDX). Application of edible hydrogel to Malang apple covering. Moringa leaf extract had the highest antioxidant activity, with an IC50 value of 15.94, according to the findings. The amount of moringa extract applied shows a linear relationship with the hydrogel formulation's greatest antioxidant capacity. The IC50 of the highest antioxidant hydrogel is 12.96. These formula's swelling, geometry, and morphological properties are superior to those of hydrogels without extract. In comparison to fruit without the edible covering, the fruit with the coating did not significantly lose mass, maintained a greener hue, or exhibit excessive staining. These findings suggest that Malang apple producers may utilize the moringa edible coating compound as part of post-harvest processing. farmers as a part of processing after harvest.

Keywords: antioxidant activity, *Moringa oleifera* Lamk.,sonication, hydrogel, green synthesis



Antibacterial activity of Staphylococcus aureus hydrogel Moringa oleifera Leaf Extract and its potential as a skin care ingredient

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ABSTRACT

Moringa leaves contain active compounds that have antibiotic activity against various bacteria and fungi. Staphylococcus aureus germs, among others, will become pathogenic and harmful if there are too many of them. This study aims to determine the antibacterial activity of Moringa oleifera leaf extract hydrogel against Staphylococcus aureus bacteria tannins and the physicochemical characterization of Moringa leaf extract hydrogel. The results showed that the extract contained flavonoid compounds, saponins, tannins, and steroids, but was negative for alkaloids and triterpenoids. The results of the antibacterial activity test of the extract against Staphylococcus aureus bacteria showed that the more extract used, the higher the antibacterial ability. The largest inhibition zone was 17.05mm. The highest antibacterial content of the hydrogel was achieved at 6.375 mm. The synthetic hydrogel contains brown extract, has a distinctive moringa aroma, and has a thick texture. Meanwhile, without extract, it is clear, unscented, and has a thick texture. The results of the stability of this physicochemical test indicate that the hydrogel that has been made meets the standards according to the test parameters of the SNI for skincare.

Keywords: Moringa Leaf, Ultrasonic, Hydrogel, Antibacterial Activity



Evaluation of the performance of the WWTP system at the beef cattle farm in LOLIT SAPI GRATI PASURUAN

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ABSTRACT

A Wastewater Treatment Plant (WWTP) is a way to minimize the levels of pollutants contained in liquid waste so that it is feasible to dispose of it into the environment. Liquid waste in cattle farms includes all water used for washing cows, cleaning cages and cow urine. The purpose of this study is to evaluate the performance of the WWTP system at the beef cattle farm in LOLIT SAPI GRATI PASURUAN. The parameters used are physical properties, namely temperature, pH, color, odor, and parameters of the chemical properties of waste, namely Total Suspended Solid (TSS), Dissolved Oxygen (DO), and Biological Oxygen Demand (BOD). The final test was carried out on the biota of tilapia and catfish. The results of the physical test have a temperature range of 26°C–28°C, a pH of 7.7-8.1, a color from dark yellow to a clear yellow, and an odor from pungent to non-stinging. The test results for temperature, pH, color, and odor have met the standards set in the PPRI. The results of the TSS chemical test at the outlet sample for the first treatment were 134 w/w, 1.05 mg/L (light pollution). The results of the test biota of catfish are known to still survive, while tilapia fish are known to be unable to oxygenate. These findings suggest that more processing is necessary for the LOLIT SAPI GRATI PASURUAN WWTP system in order to produce effluent of higher quality.

Keywords: WWTP, continuous aeration, test biota



Perbandingan Pencahayaan Masjid Tarbiyah dan Masjid Ulul Albab Universitas Negeri Malang

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ABSTRACT

Penggunaan cahaya alami sangat penting pada sebagian besar jenis bangunan. Untuk memastikan bangunan mendapat penerangan yang baik, maka desain pencahayaan harus diperhatikan. Sistem pencahayaan bangunan yang baik akan mampu memenuhi kebutuhan manusia akan kesehatan dan kenyamanan visual. Cahaya alami dipercaya oleh penghuni memberi dampak kesehatan yang lebih baik dibandingkan dengan cahaya buatan. Kenyamanan visual dapat diperoleh dengan baik pada pencahayaan alami maupun pencahayaan buatan. Ketersediaan cahaya alami menjadi suatu faktor yang sangat penting bagi perancangan pencahayaan bangunan. 1 Masjid merupakan sarana ibadah umat muslim yang dapat menampung jamaah dalam jumlah banyak, namun seiring berjalannya waktu bangunan ini memiliki fungsi lain yang tidak hanya digunakan sebagai tempat peribadatan. Fungsi tersebut sering kita temui dalam studi kasus masjid yang terdapat di area kampus, seperti Masjid Tarbiyah dan Masjid Ulul Albab Universitas Islam Negeri Malang. Penelitian ini akan menjawab tentang bagaimana pengaruh warna kaca terhadap intensitas cahaya yang masuk ke dalam masjid tarbiyah dan masjid ulul albab universitas islam negeri malang.

Keywords: Masjid Tarbiyah, Masjid Ulul Albab, pencahayaan



KO.BOY CAFE EXTERIOR DESIGN RECOMMENDATIONS BASED ON THERMAL COMFORT OF OUTDOOR AND SEMI OUTDOOR SPACES

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ABSTRACT

Ko.Boy Café is a cafe with an industrial concept that provides an outdoor space with opening hours from 12 pm - 12 am. The time of day and night definitely affects the thermal conditions in indoor and outdoor cafes. Outdoor space attracts visitors. However, during the day and when it rains, this cafe will be empty of visitors or visitors will feel uncomfortable. Based on observations and data collection, this cafe does not meet the effective temperature. Temperature range indoor and outdoor during the day 27 - 30°C. Variation of wind speed 0.0 - 2.0 m/s with humidity 72 - 94%. The design recommendations made are the addition of aspects of vegetation, shade, and specifications for windows and shelters.

Keywords: thermal comfort, koboy café, semi outdoor



Dorms and Covid-19: Resilient Architecture Approach to Darul Ulum Islamic Boarding School Dormitory Design

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ABSTRACT

Covid-19 pandemic has been going on for the past few years. One of the impacts of the pandemic is change in education sector, including in pesantren. Indonesian Doctors Association (IDI) issues requirements that must be met if a boarding school is opened 1. Life in a boarding school, especially in dormitory housing is identical with shared activities. The issue of the pandemic and the potential of the dormitory environment become a new cluster for the spread of Covid-19 is the background for designing resilient dormitory. The Resilient Architecture approach that is applied stems from the resilient theory by Istiadji, Hardiman, and Satwiko which has four principles, namely: Recovery, Responsive, Adaptive, and Absorptive. The principles resilience architecture approach in the design are complemented by two Islamic principles those are protecting views and maintaining privacy. The design process uses linear analysis which applicate the resilient concept in the arrangement of mass and user circulation, natural lighting of the room, the structure and processing of the building's facade, as well as the open space on the site. The application of four principles of resilient architecture and two Islamic principles makes the dormitory design able to adapt to changes during the pandemic and the environment around the site.

Keywords: Dormitory, Covid-19, Resilient architecture approach



REKOMENDASI DESAIN BUKAAN TERHADAP OPTIMALISASI PENCAHAYAAN ALAMI MASJID KAMPUS

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ABSTRACT

Pencahayaan alami merupakan salah satu isu penting dalam pemenuhan kenyamanan pada masjid. Pencahayaan alami pada masjid umumnya berasal dari bukaan-bukaan seperti jendela, pintu, dan langit-langit. Dimensi, perletakan, dan material yang digunakan menandai beberapa faktor penting dalam mengoptimalkan intensitas cahaya yang masuk. Penelitian ini bertujuan untuk mendapatkan rekomendasi desain bukaan yang optimal pada masjid dengan melakukan studi komparatif yang bersifat kuantitatif dengan sampel yang diambil pada 2 buah masjid kampus di Kota Malang, yaitu Masjid Muhajirin (Masjid Kampus ITN) dan Masjid A.R. Fachruddin (Masjid Kampus UMM). Tahap pertama dilakukan dengan pengukuran lapangan pada masing-masing masjid menggunakan luxmeter Smart Sensor. Pengukuran dilakukan pada hari yang berbeda dengan Masjid Muhajirin menjadi objek yang pertama, kemudian dilanjutkan dengan pengukuran pada Masjid A.R. Fachruddin Tahap berikutnya, dilakukan komparasi dengan menggunakan simulasi komputer pada software dialux untuk mendapatkan materi dan jenis bukaan yang tepat untuk pencahayaan yang optimal pada ruang sholat kedua masjid kampus sebagai rekomendasi desain.

Keywords: Pencahayaan alami, bukaan, lux



KENYAMANAN TERMAL PADA RUANG DENGAN MATERIAL KACA

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ABSTRACT

Kenyamanan Thermal mempengaruhi aktivitas manusia sehari-hari terutama pada bangunan. Penggunaan material memegang peranan penting dalam desain bangunan untuk menciptakan kondisi termal yang menyenangkan, terutama pada desain eksterior bangunan, yang merupakan pembatas antara interior dan eksterior bangunan. Saat ini sudah banyak bangunan di Indonesia yang menggunakan kaca sebagai penutup bangunannya untuk memberikan kesan modern dan terlihat cerah. Namun, Indonesia memiliki iklim tropis lembab, yang meningkatkan intensitas radiasi matahari dan dapat menyebar di dalam ruangan. Metode penelitian yang digunakan adalah deskriptif kuantitatif. pada metode deskriptif digunakan untuk memaparkan data mengenai kondisi eksisting. metode ini dilakukan dengan observasi lapangan dan validasi data dengan Overall Thermal Transfer Value (OTTV). Penelitian ini bertujuan untuk melihat bagaimana kenyamanan termal pada ruang dengan material kaca terhadap material lain, apakah sudah sesuai dengan standar kenyamanan termal. Penelitian ini dilakukan dengan pengukuran lapangan terhadap variabel kelembapan, suhu, jumlah pengunjung/penghuni, dan cuaca. Hasil dari penelitian menunjukkan bahwa material, luas bukaan, dan luas fasad mempengaruhi nilai OTTV dan ketiga objek tersebut memenuhi syarat dengan tidak melebihi nilai OTTV yaitu 45 watt/m².

Keywords: kenyamanan termal, kaca



Metabolite Profiling of *Acalypha indica* Linn Extract Based Different Altitude using UHPLC-Orbitrap HRMS

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ABSTRACT

Acalypha indica Linn is a weed that grows in the yard and has pharmacological properties. Basic information on its metabolite profile is lacking. This study aims to distinguish and predict the metabolites contained in *Acalypha indica* Linn from the altitude of the location in East Java. Samples were extracted using ethanol as a solvent. Separation and identification of metabolites in the ethanolic extract of *Acha indica* Linn using UHPLC-Q-Orbitrap HRMS. The results showed that the metabolites contained in the *Acalypha indica* Linn plant based on the height of the growing location were 87 metabolites. 59 compounds in the Banyuwangi area, 57 compounds in the Magetan area, 53 compounds in Malang and 71 compounds in the Tuban area. The identified metabolites are alkaloids, flavonoids, terpenoids, steroids, quinones, amino acids, fatty acids, and saccharide groups. Clustering of *Acalypha indica* Linn plants using principal component analysis obtained different groups based on the growing location.

Keywords: *Acalypha indica* Linn, metabolomic, UHPLC-Q-Orbitrap HRMS



IDENTIFIKASI INTENSITAS CAHAYA ALAMI DI RUANG LANTAI 2 PERPUSTAKAAN UIN MAULANA MALIK IBRAHIM MALANG

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ABSTRACT

Dalam institusi pendidikan tentunya memiliki wadah bagi pelajarnya untuk mengembangkan ilmu pengetahuannya. Salah satunya fasilitas perpustakaan yang didalamnya banyak hal kegiatan yang dilakukan para pelajar seperti literasi, mencari buku referensi, menggunakan komputer, berdiskusi dan lain sebagainya. Berdasarkan fungsi utama yaitu sebagai penunjang pembelajaran, sehingga membuat penggunaannya memerlukan intensitas cahaya yang cukup sesuai dengan kebutuhan kegiatan didalamnya. Dalam hal ini studi kasus yang diangkat adalah ruang pada lantai 2 Perpustakaan UIN Maulana Malik Ibrahim Malang, dimana Gedung ini sebagai dalam penunjang kegiatan belajar maupun penelitian mahasiswa. Permasalahan yang dibahas mengenai perbandingan tingkat intensitas cahaya alami yang berada di beberapa zona ruang lantai 2 perpustakaan seperti zona baca, zona bilik, zona komputer. Tujuannya untuk mengevaluasi tingkat intensitas cahaya alami yang berada di beberapa zona tersebut. Dalam penelitian ini metode yang digunakan adalah metode kuantitatif dengan penggunaan alat lux meter sebagai alat observasi dan penggunaan angket yang di sebar kepada pengguna lantai 2 Perpustakaan UIN Maulana Malik Ibrahim Malang. Berdasarkan observasi ditemukan bahwa beberapa zona tertentu belum memenuhi standar minimum pencahayaan perpustakaan yaitu 300 lux dan ada beberapa zona ruang yang tergolong dalam ruang yang kurang nyaman karena tingkat kesilauannya.

Keywords: luxmeter, intensitas cahaya, perpustakaan



Perbandingan Pengaruh Bentuk Denah dan Orientasi Bangunan terhadap Intensitas Pencahayaan Alami pada Bangunan Sekolah

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ABSTRACT

Siang hari dapat dianggap sebagai salah satu prinsip terpenting arsitektur berkelanjutan. Sangat disayangkan bahwa hal ini diabaikan oleh para arsitek dalam menyesuaikan bangunan dengan kondisi lingkungan yang ada di Malang. Sebuah kota yang tidak sedikit dengan bangunan fasilitas sekolah di setiap wilayahnya. Sebagai kota yang padat dengan bangunan, pengaruh bentuk bangunan, tatanan denah, dan orientasi bangunan pendidikan sangatlah penting adanya. Terutama pencahayaan pada ruang kelas merupakan salah satu faktor penunjang optimalnya proses belajar mengajar. Dengan pencahayaan yang baik bernilai tidak kurang dari 250lux maka terciptanya perasaan yang nyaman. Sebaliknya apabila pencahayaan pada ruang kelas tidak tepat maka dapat merusak atmosfer ruang kelas sehingga menimbulkan perasaan yang kurang nyaman. Penelitian ini melakukan perbandingan tingkat intensitas pencahayaan alami pada 2 bangunan sekolah yakni SMA Lab UM dengan SMAI Malang, pengukuran menggunakan luxmeter dan visualisasi menggunakan DIALux v.13. Pengukuran menggunakan luxmeter pada ruang sudah memenuhi Standar Nasional Indonesia nilai rata-rata tidak kurang dari 250lux. Hasil penelitian menunjukkan bahwa intensitas pencahayaan alami yang masuk pada SMA Lab UM Malang memiliki nilai lebih rendah dari SMAI Malang, dengan presentase 70% dari keseluruhan bangunan di SMAI Malang terkena sinar matahari sepanjang hari yang disebabkan oleh pengaruh denah dan orientasi bangunan. Dengan ini pemberlakuan sistem arsitektur berkelanjutan dengan penambahan fasad atau material penstabil suhu ruangan pada bangunan SMAI Malang.

Keywords: pencahayaan alami, sekolah



Redesain Sistem Pencahayaan Studio 7 Teknik Arsitektur UIN Malang

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ABSTRACT

Lighting in the classroom in the form of a studio is very necessary, for the standard lighting in the studio itself is 700 lux. Likewise with studio 7 which is located on the 4th floor of the architectural engineering department of the faculty of science and technology. Therefore, research related to lighting in studio 7 was carried out using primary and secondary data collection methods and also carried out lighting simulations on the dialux at two different times, namely in the morning and afternoon. From these results, it was found that the response during the day was quite good without using lights, while the response in the morning with settings at 7 o'clock and overcast, the objects in the room were too bright, so several simulations of design differences were carried out. The result of the simulation is that the studio 7 room is sufficient for lighting in the room so that the use of lights in studio 7 is not really necessary because it will only create glare from the user's point of view inside and this only causes a waste of energy used, the use of lights in the studio 7 room is only needed when daylight factor is less than the maximum or when the weather is dark.

Keywords: light intensity, studio, dialux



Lighting Analysis in Studio 6 Room in the Department of Architectural Engineering UIN Maulana Malik Ibrahim Malang Using the Dialux Evo Application

10.1

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ABSTRACT

Room lighting is an important factor in the work environment to improve performance and is also a factor in occupational health and safety. Lighting that is not up to standard can cause eye fatigue, resulting in decreased worker performance. In educational institutions, the classroom needs adequate lighting to support teaching and learning activities in the room. The purpose of this study is to determine whether the lighting level in the classroom is in accordance with the SNI 03-6575-2001 standard, which is 250 lux. Based on the calculation of the number of lamps, in studio room 6 it takes 6 lamps. Calculation using Dialux Evo 10.1 in a studio room with 6 levels of lighting during the day are 417 lux and at night are 169 lux. This shows that it is necessary to repair the lighting installation.

Keywords: work environment, lighting, studio room, SNI, dialux evo 10.1



Analysis of Natural Lighting in Lecture Room Studio 5, Faculty of Science and Technology, State Islamic University of Mulana Malik Ibrahim Malang

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ABSTRACT

Desain pencahayaan merupakan salah satu faktor dalam perencanaan pembangunan, baik gedung . Tujuan penelitian ini adalah untuk mengetahui bagaimana tingkat iluminasi dalam ruang kuliah, apakah berpengaruh terhadap orientasi bangunan dan bagaimana intensitas cahaya pada area bukaan selubung bangunan. Penelitian yang menggunakan metode kuantitatif dengan program software DIALux evo 10.1 bertujuan untuk melakukan simulasi optimasi terhadap ruang studio 5 yang menjadi objek penelitian guna mencapai hasil pencahayaan yang sesuai standart. Hasil penelitian menyimpulkan bahwa untuk mendapat pencahayaan yang optimal pada ruang tersebut dibutuhkan beberapa perubahan pada elemen interiornya. Penelitian ini diharapkan dapat menjadi acuan dalam merumuskan rekomendasi standar iluminasi, khususnya pada ruang kuliah.

Keywords: Orientasi bangunan, ruang kuliah, tingkat illuminasi, studio 5.



LIGHTING ANALYSIS IN STUDIO ROOM 4 FACULTY OF SCIENCE AND TECHNOLOGY ARCHITECTURE ENGINEERING PROGRAM

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ABSTRACT

Lighting is one of the mandatory requirements so that human life can run well. The light that enters the building spaces is very helpful for users in carrying out activities in space. Good lighting conditions need to be considered, because they have an impact on many things such as comfort in space, energy use, and much more. This research was conducted qualitatively and quantitatively. Observations directly and also from the results of the user's response to the space. The room that we took as research material was Studio Room 4 at the Faculty of SAINTEK Architectural Engineering study program. For the quantitative method using DIALux.evo software.

Keywords:



Application of Moringa Leaves (*Moringa oleifera*) in Liquid Organic Fertilizer for Red Spinach (*Amaranthus tricolor* L) Plant Growth

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ABSTRACT

Soil contamination is one of the many industrial and social activities that significantly contribute to environmental harm. It consequently prevents plant growth. One such approach is the application of liquid organic fertilizer. This issue might be resolved by using liquid organic fertilizer made from processed moringa leaves that have undergone natural fermentation. It is quite likely to be used as a liquid organic fertilizer since moringa leaves include macronutrients (N: 4.02%, Ca: 12.3%, P: 1.17%, Mg: 0.10%, K: 1.8%, and Na: 1.16%), micronutrients (Zn, Fe, and Cu), and growth hormone (zeatin and cytokinin). The research was conducted by spraying Moringa leaf liquid organic fertilizer on red spinach plants 2-3 times a day and measuring plant height and leaf width for red spinach plants for 30 days and compared with red spinach plants without liquid organic fertilizer Moringa leaves. The results showed that the growth of red spinach plant height that was watered with the addition of liquid organic fertilizer from Moringa leaves was 1.4 times faster than that of red spinach that was only watered with water. Meanwhile, the comparison of the length growth of red spinach leaves that was watered with the addition of liquid organic fertilizer, Moringa leaves were 1,375 times faster than that of red spinach that was only watered.

Keywords: liquid organic fertilizer, Moringa leaves, red spinach



ABSTRACT

Religious Moderation for Human Capital Development



Hadith Interpretation Of Religious Moderation Among Students And Its Implications For The Radicalization Inversion Movement At UIN Jakarta

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ABSTRACT

Many studies have cited the massiveness of radical understanding among students in universities. Not only students from public universities, but also come from religious colleges such as UIN and IAIN. Therefore, this study aims; first, to analyze the hadith interpretation of Islamic moderates among students. second, knowing the implementation of indications of religious moderates among students. Third, knowing the implications of the interpretation of Islamic moderates among students on the inversion-radicalization movement in Indonesia. All interview questions refer to the four pillars of indication of religious moderation initiated by the MORA, namely national commitment, tolerance, non-violence, and acceptance of local culture. This type of study is qualitative, and the approach chosen is hadith-phenomenological. The method used in this study consists of three main methods. First, the descriptive method; second, the critic-analysis method; third, the critic-analysis-reflective. The results of this study provide information that the interpretation of Islamic moderatism among students has a variety of languages interpreted by each student. As for interpreting the hadith, many of them still do not understand and understand the content of the hadith. Based on the questionnaire and interview data, none of the students were free from indications of radicalism. The implications of these findings provide clues to the importance of fostering and socializing ideologies and instilling attitudes of moderation among students.

Keywords: Hadith interpretation, Islamic moderatism, student.



Javanese Islamic Moderation of Sunan Kalijogo, Harmonization of Islamic and Javanese Teachings (Aggregation of Culture and Ideology)

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ABSTRACT

Islam came in a condition where Javanese culture was rooted in society. As a new teaching, Islam is easy to accept, this is ironic because Islamic teachings are very different from what has become culture in Java. With the arrival of the Kalijaga Sunan, Javanese culture and Islamic teachings were introduced into a complementary aggregation so as to form a harmony between culture and ideology. Reflecting on this, the authors reveal that the purpose of this study is to find out how the approach to introducing Islam to Javanese society was used by Sunan Kalijaga, how the established ritual was incorporated into Islamic teachings. The research method used in this paper is historia library research. This research concludes that the teachings of Islam and Java have a positive aggregation between culture and ideology, this is stated by Sunan Kalijaga which is explicitly different from other Walisongo's teachings, and opens up that Sunan Kalojaga's Javanese Islam is in line with Islam.

Keywords: aggregation, culture, harmonization, Islam



The Discourse of Religious Moderation Represented in Hanan Attaki's YouTube Videos

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ABSTRACT

The concept of “moderate” is synonymous with “Wasathiyah” (middle path). Many scholars agree on the concept of wasathiyah Islam as the way out of the extremism in practicing and understanding the religion. Therefore, the religious moderation authority is important to be articulated in the dakwah especially for the young generation. The paper aims at discussing the discourse of religious moderation represented in Hanan Attaki's YouTube videos. Hanan Attaki is chosen as he is one of a few ustads who is popular among young Muslim in Indonesia. Although based in Bandung, Hanan Attaki develop his dakwah by employing many social media channels: Facebook, Instagram and YouTube channel. The question proposed in this study is, how is the discourse of religious moderation represented in Hanan Attaki's YouTube videos. This question is explored by applying a cultural and media studies approach, with the data sources of Hanan Attaki's YouTube videos. The videos are examined by using Fairclough's Critical Discourse Analysis. The discourse of moderation in Hanan Attaki's videos is examined through four aspects, tolerance to different religion, tolerance to local culture, interaction with non muslim and acceptance to nationalism

Keywords:



ABSTRACT

Post Pandemic Strategies for Economic Recovery



ISLAMIC FINANCIAL BANK PERFORMANCE IN THE WORLD

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ABSTRACT

The purpose of this study was to partially analyze the effect of capital structure, bank size, and asset growth on the profitability (ROA) of Islamic banking in the world. The population in this study was 187 Islamic banks that were members of the IFSB in 2022. The type of research was quantitative with an explanatory approach. The sampling technique used purposive sampling with a total sample of 18 Islamic banks in the world. The results showed that the capital structure had a significant negative effect on profitability, while bank size had no significant effect on profitability. Asset growth has a significant positive effect on profitability.

Keywords: Capital Structure, Bank Size, Asset Growth, Profitability



Zakat, Infaq, Sadaqah, and Wakaf (Ziswaf) Funds and The Regional Recovery Post-Disaster Eruption of Mount Semeru

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ABSTRACT

The purpose of this study was to find out how the pattern and implementation of the distribution of ZISWAF funds in the context of regional recovery after the Mount Semeru eruption disaster. This study uses a qualitative approach, with data collection through interviews, observation, and documentation as well as conducting validity tests through triangulation of sources and techniques. The data analysis went through three stages: data reduction, data presentation, and drawing conclusions. The results of the study indicate that there is a program implementation that is running well at BAZNAS Lumajang. This can be seen from the results that have been felt by the community after the implementation of the program, starting from the initial stages of prevention to recovery. In addition, the establishment of cooperation and synergy between local governments, DPRD and Baznas in post-disaster recovery efforts. So that the programs implemented can complement each other, be integrated and have a broad impact on the community.

Keywords: Ziswaf Distribution, ZISWAF, Regional Recovery, Post-Disaster.



Efektivitas Penyaluran Dana Zakat Produktif Oleh Badan Amil Zakat Nasional Provinsi Kalimantan Timur Dalam Upaya Meningkatkan Perekonomian Mustahiq Kota Samarinda Pada Masa Pandemi Covid-19 (Tahun 2020-2021)

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ABSTRACT

This research is based on the background that the Coronavirus Disease 2019 (Covid-19) pandemic has brought several impacts to the community, one of which is the economic impact. Many small business actors go bankrupt which makes their businesses close as well as kills people's income. To deal with this problem, the government provides several solutions, one of which is the National Amil Zakat Agency (BAZNAS) of East Kalimantan Province which provides productive zakat funds to mustahiq in the form of business capital in the form of cash or business equipment, with the aim of being able to improve the mustahiq economy during the pandemic. Covid-19. The purpose of this study was to determine whether the distribution of Productive Zakat funds at the National Amil Zakat Agency of East Kalimantan Province was effective or not in an effort to improve the mustahiq economy of Samarinda City during the Covid-19 pandemic. As well as knowing the effectiveness of the distribution of Productive Zakat funds at the National Amil Zakat Agency of East Kalimantan Province in an effort to improve the mustahiq economy of Samarinda City during the Covid-19 pandemic. The research method used in this research is a mixture of qualitative and quantitative research. By using Ni Wayan Budiani's theory related to effectiveness benchmarks, namely: Targeting accuracy, program planning, program socialization, program objectives, and program monitoring. Where researchers conducted interviews with mustahiq recipients of productive zakat funds or venture capital by BAZNAS Kaltim in 2020 and 2021 for qualitative methods, and used reports on the collection and distribution of productive zakat funds for quantitative methods. The result of this study is that the distribution of productive zakat funds by BAZNAS of East Kalimantan Province during the Covid-19 pandemic was not effective because one of the effectiveness indicators, namely the program objectives, was not fulfilled. The effectiveness of the distribution of productive zakat funds is also considered ineffective because the interpretation value of the distribution of funds is less than 45%, namely 20.79% in 2020 and 22.46% in 2021. However, the distribution of productive zakat funds has been effective in an effort to improve the mustahiq economy of Samarinda City. It can be seen that all mustahiq can improve their economy by continuing to develop their business, such as adding types of merchandise, updating their place of business, adding business equipment, increasing income and so on.

Keywords: Effectiveness, Productive Zakat, Badan Amil Zakat Nasional, Economic Improvement, Mustahiq, Covid-19.



Marketing Strategy To Increase Sales After The Covid-19 Pandemic In Micro Enterprises Small Medium

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ABSTRACT

This study aims to determine the marketing strategies implemented by Micro, Small and Medium Enterprises (MSMEs) after the Covid-19 Pandemic. Facing the COVID-19 pandemic, business actors apply the right strategies in order to survive during the pandemic. The current situation, which is better after the pandemic, has forced business actors to review their strategies by adjusting to current conditions. The research method used is descriptive qualitative research. Data collection techniques are carried out directly or primary, namely through observation and interviews. Data analysis is by examining all available data from various sources, namely the results of interviews and observations. The subject of this research is SMEs in Berbek District, Nganjuk Regency. The results show that the marketing strategy carried out by MSME actors is by selling online and offline, utilizing social media technology for promotion, providing price differences for sales in large quantities and improving the quality of the products sold. There were six informants in this study, four informants stated that in doing marketing to increase sales during this covid pandemic, the most improved was in terms of promotion which currently utilizes social media. Two informants stated that the most important among the marketing strategies applied were in terms of product quality and selling price. provide price differences for sales in large quantities and improve the quality of products sold. There were six informants in this study, four informants stated that in doing marketing to increase sales during this covid pandemic, the most improved was in terms of promotion which currently utilizes social media. Two informants stated that the most important among the marketing strategies applied were in terms of product quality and selling price. provide price differences for sales in large quantities and improve the quality of products sold. There were six informants in this study, four informants stated that in doing marketing to increase sales during this covid pandemic, the most improved was in terms of promotion which currently utilizes social media. Two informants stated that the most important among the marketing strategies applied were in terms of product quality and selling price.

Keywords: Marketing Strategy, Increasing Sales, MSMEs, Post-Covid-19 Pandemic



Islamic bank sustainability: How it Relates to Customer-Centric and Islamic Bank Governance?

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ABSTRACT

The study tests the correlation of governance on the sustainability performance of Islamic banks. And is there a correlation of customer-centric Corporate Social Responsibility (CSR) strategy with Islamic identity on the sustainability performance of Islamic banks in terms of economy, environment, and social? This study used cross-section data from 10 Islamic commercial banks in Indonesia for 2020. Based on the correlation test, there was no significant positive relationship between sustainability performance and customer-centric CSR within the scope of Islamic ethics, and there was no significant correlation between sustainability performance and corporate governance. Customer-centric CSR in Islamic ethics also has no significant correlation with sustainability performance; several other factors that affect customer-centric CSR strategy in the scope of Islamic ethics have not been discussed in the research.

Keywords: Corporate Governance; Customer Centric; CSR; Islamic Bank; Sustainability Performance



The National Economic Outlook During COVID-19: Government And SMEs Strategies To Cope With The Outbreak

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ABSTRACT

This study aims to provide on how SMEs (Small and Medium Enterprises) in Indonesia benefit the stimulus program of Government during the Pandemic of Covid-19 and to set a strategy to face the hard situation. It employs a qualitative approach. Data were collected by semi-structured interviews with 20 owners of SMEs in Indonesia. The official document policy of the Government were analyzed by interpreting the policy. The result suggested that the Government issued three policies: Government Regulations, Presidential Regulations, and Presidential Instruction. Government also released five points of SME stimulus, protection, and recovery programs. The response and strategy of SMEs towards the policies and programs are diverse. Some can take the most of it, such as social security programs like cash transfers and pre-employment cards, which are mostly taken by micro-businesses. At the same time, tax incentives and credit relaxation are commonly benefited by small businesses. However, the stimulus program is perceived to help SMEs in the short term, but not in the long term. SMEs have to find a special strategy to survive and compete during the Pandemic through technology and innovation in terms of product, process, and management. The Government can further evaluate the existing programs and provide an appropriate practical solution to SMEs, so the assistance for SMEs is right on target. This research contributes theory, especially regarding the company's strategy during the pandemic. Practically, the results of this study can be used as a basis for the government in making policies and for companies in choosing the best strategy during the pandemic.

Keywords: SMEs strategy; Economic regulation; tehnology; innovation; COVID-19



Investment Decisions as Female Workers During Post Pandemic

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ABSTRACT

Investment is an effort to balance needs, expenses and sources of income. Women are required to have basic knowledge of finance, such as controlling expenses, to setting aside money for investment. This study aims to identify how investment decisions are made by female workers in making investment decisions, in addition to identifying the types of investments made by these female workers. Some of the reasons given by respondents related to why it is important to invest is security in the future. It is important for us to secure our future by means of one of them by investing. With investment, we can cultivate wealth which we can use to finance our needs in the future. We must be able to respond to the uncertainty of the future wisely. In addition to future security, the reasons and objectives for investing are education of children in the future, for emergencies, child marriage and house purchases. The choice of investments made by women includes land, deposits, property and precious metals.

Keywords: investment decisions, female workers, pandemic



ISLAMIC LAW REVIEW ON FINTECH P2P LENDING, REGULATIONS AND ITS INSTITUTIONS IN INDONESIA

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ABSTRACT

This article aims to review fintech P2P lending in Indonesia from the perspective of Islamic law. P2P lending has great potential to support financial inclusion in the context of economic empowerment from various layers. However, if this P2P lending practice is not accompanied by adequate legal instruments, this financing model will have a high risk. Legal protection needs to be given to all parties involved in this transaction proportionally. Islamic law needs to review the practice of P2P lending in Indonesia so that in the future it can provide more benefits to the community. From the results of the review, it was found that there are no regulations that support the establishment of Islamic P2P lending. The P2P lending concept cannot accommodate sharia contracts that can be applied to fintech financing. Islamic P2P lending companies in Indonesia are still few compared to conventional ones, and even there is no guarantee of complying with sharia principles.

Keywords: Islamic law, fintech, P2P lending, regulations, institutions, Indonesia



ABSTRACT

Industry and Engineering in Herbal and Halal Products



LINEAR DISCRIMINANT ANALYSIS (LDA) AND PARTIAL LEAST SQUARE (PLS) OF CHEMOMETRIC IN MIXTURE OF LARD AND PALM OIL-BASED ON FTIR-SPECTROSCOPY DATA

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ABSTRACT

Oil as a basic food requirement is often misused by irresponsible individuals, such as lard mixed in palm oil. This is certainly detrimental to society. Indonesia which has a majority Muslim population will have a big influence on the authenticity of oil. FTIR can be an alternative way to distinguish authentic and mixed foods or oils. The purpose of this study is to find out the difference between lard, palm oil, and the mixture of both by using FTIR combined with LDA (Linear Discriminant Analysis) and PLS and find out how much the contribution of LDA and PLS in distinguishing mixed pig oil, palm oil and oil both. The results obtained showed that FTIR was less effective in distinguishing between samples so it was necessary to combine it with LDA and PLS. LDA processed with the stepwise method gives good grouping results. There are two discriminant functions obtained. The LDA data shows the first discriminant function that is obtained with a variance value of 99.3% and the second discriminant function with a variance value of 0.07%. The LDA data shows the first discriminant function that is obtained with a variance value of 99.3% and the second discriminant function with a variance value of 0.07 %. PLS data shows good results, which can be seen in the R² value and validation error value (RMSECV) and low calibration error (RMSE).

Keywords: FTIR; Chemometrics; LDA; PLS



Optimization of Drug Design Composition by Hybrid Islamic and Evolutionary Medicine for Covid-19 and Its New Variants Using Geometric Time Variants Extreme Genetic Algorithm

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ABSTRACT

There is a difficulty in building the implementation of a computational model to build a complex Covid-19 drug design involving a smart ecosystem. Covid-19 and the drug design of its new variants are formed by combining the appropriate compound and dose as an antiviral. Drug designs as the candidates for Covid-19 drugs can be in the form of herbal medicines and other materials. In computing the design of this drug, the encountered problem is the way to separate the features between the mixed compounds. The feature extraction received will be optimized into compounds that are useful as Covid-19 drug candidates. On the other hand, drug design using manual computational methods is very complicated and requires a fairly long-time estimation in forming the proper compound with many variants of each compound. From the problems that occur, it requires a system that can perform drug design computations quickly and precisely. Therefore, a new method of combining extreme learning machines and genetic algorithms is made called Geometric Time Variants (GTV) Extreme Genetic Algorithm (XtremeGA or eXGA or ExGA). As a result, drug design optimization using historical data by hybrid Islamic and evolutionary medicine for Covid-19 and its new variants can work quickly, optimally, and achieved convergence conditions.

Keywords: Hybrid Islamic and Evolutionary Medicine, Covid-19 and It's New Variants, Geometric Time Variants, Extreme Genetic Algorithm, meta-Deep AI Medicine Engine



PREVENTION OF CYTOADHERENCE AND HEART CELL HYPOXIA OF BALB/C MICES INFECTED WITH *Plasmodium berghei* WITH THERAPY OF PARE (*Momordica charantia* L)

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ABSTRACT

Background: Malaria is a disease caused by Plasmodium parasites (*P. falciparum*, *P. ovale*, *P. vivax*, *P. malariae*, *P. knowlesi*) infection often caused by the bite of female Anopheles mosquitoes which have Plasmodium parasites in their salivary glands. Plasmodium develops in the human liver and then invades red blood cells. This causes the symptoms of malaria. Cytoadherence is the adherence of erythrocytes infected by parasite on the endothelial surface of blood vessels due to mature parasites which causes adhesive molecules on the surface of erythrocytes to adhere with adhesive molecules on the endothelial surface of blood vessels. Causes of hypoxia in malaria include cytoadherence, sequestration, and anemia. Bitter melon (*Momordica charantia* L.), which is a traditional medicine, contains terpenoid and alkaloid substances which have anti-malarial properties. There hasn't been any study on the relationship between bitter melon and cytoadherence as well as hypoxia in malaria. Objective: To understand the effect of bitter melon therapy on decreasing cytoadherence and hypoxia in hepatocytes of Balb/c mice infected with *Plasmodium berghei*. Methods: This purely experimental research is conducted in vivo in a lab environment. There are 2 control groups, the positive control group which received anti-malarial therapy, and the negative control group which receives no therapeutic intervention. There are also 3 treatment groups, group 1 received a 4mg/gBW dose of bitter melon extract, group 2 received 8mg/gBW dose of bitter melon extract, and group 3 received 12mg/gBW dose of bitter melon extract. Each group has 5 Balb/c mice infected with *P. berghei*. Results: There is a decrease in cytoadherence with a significant relationship ($r = -0,917$) and the most effective dose is 12mg/gBW. There is also a significant decrease in hypoxia with a significant relationship ($r = -0,892$) and the most effective dose is 12mg/gBW. Conclusion: Bitter melon therapy has a significant effect on decreasing cytoadherence and hypoxia in hepatocytes of Balb/c mice infected with *P. berghei* with the most significant dose of 12mg/gBW.

Keywords: Malaria, cytoadherence, hypoxia, *Momordica charantia* L.



ABSTRACT

Transformative STEAM Education for Sustainable Development



Lecturer strategies for developing student creativity in higher education

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ABSTRACT

Developing creativity in students is necessary throughout the learning process in higher education. Correspondingly, this study aims to elaborate on the role of lecturers in developing student creativity. This study was conducted through a qualitative approach with a case study design to identify the lecturers' strong role as implemented in three universities. Ninety students and four lecturers purposively obtained the data by establishing the creative personality scale, creative thinking ability test, interviews, and documentation; the data on creative personality and creative thinking were analyzed using descriptive analysis, while the interview data was analyzed through thematic analysis. The results suggest three lecturers' roles in developing creativity, such as providing cognitive and emotional support, using appropriate learning methods, and collaborating with students. The findings, however, signify the importance of improving lecturers' ability to enhance the understanding of lecturers' role as required in developing student creativity. Equally important, further research is expectedly to implement different approaches by elaborating mix-methods between the type of support for students and the kind of collaboration with students. Additionally, an experimental method is eligible to test different learning models in developing creativity.

Keywords: Creative personality and creative thinking, higher education programs, teaching, and learning strategy.



Hybrid Arabic Learning Based On Constructivism Theory For Higher Education

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ABSTRACT

The development of Arabic learning is an ongoing effort to accompany the educational transformation process, which cannot be separated from the influence of information technology development. This study aims to find out the practice of hybrid Arabic learning that is carried out in universities. The hybrid model is run to meet the needs of students in the two-way language learning process, virtually and face-to-face. This study is based on constructivism theory and finds that hybrid Arabic learning has implications for cognitive maturity in mastering Arabic. Practically, the hybrid learning climate has created active communication interactions for students involved in learning. In line with that, this study suggests the need for a more adaptive Arabic learning development model according to student needs, considering the design of Arabic learning to be achieved.

Keywords: hybrid, Arabic learning, higher education, constructivism



Implementation Model of Independent Learning on Arabic Learning in Higher Education

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ABSTRACT

This study aims to describe the model of implementing independent learning in Arabic language learning. This research uses a qualitative approach with multi-site research at the State Islamic Religious College in East Java which has implemented independent learning. As research objects, the Arabic Language Education study program of Maulana State Islamic University Malik Ibrahim Malang and Kediri State Islamic Institute. The data was obtained from sources, namely the head of the Arabic Language Education study program, Arabic language lecturers, and documents from implementing Arabic language learning. The data were unearthed by interview techniques, observation, and documentation studies. Data analysis techniques through Miles and Huberman techniques include data collection, condensation, data display, verification, and conclusions. Data wetness techniques with participation, the persistence of observations, triangulation, adequacy of references, checking members, detailed descriptions, and auditing. This research resulted in 1) Procedures for implementing the independent learning curriculum by preparing Standard Operating Procedures through student registration and selection, 2) Socialization of the independent learning program Arabic language education is carried out by providing information to students about the independent learning program, and 3) Conversion of the value of the independent learning program courses Arabic language education by providing elective courses that are implemented in the form of internships and adjusted with the course.

Keywords: Arabic Learning, Model of Independent Learning.



Arabic Learning Challenges: Student Experiences in Islamic Higher Education

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ABSTRACT

Arabic as a means of communication and the language of Islam, it is also an international language. Arabic has not yet become an official language for the Indonesian people, but it is one of the mandatory lessons for Islamic educational institutions. In line with that, this study aims to map students' experiences in learning Arabic. This study uses a qualitative method with the object of research being students of the Arabic language and literature study program. Students were interviewed privately and openly through a google form regarding their experiences in the process of learning Arabic. The findings of this study show that there are three kinds of challenges faced by students, namely challenges that come from internal language, challenges from students' internal self, and challenges from external. This study concludes that learning any language can't be separated from challenges, but the challenges of each individual experience differences and vary. In line with that there needs to be a solution from oneself (students) in facing these challenges.

Keywords: Learning Arabic, Higher Education, students'; experiences.



Implementation Design of Merdeka Belajar Kampus Merdeka

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ABSTRACT

Merdeka Belajar Kampus Merdeka (MBKM) policy is implemented to improve student competencies so that they are relevant to the needs of the world of work. MBKM gives students the right to study outside the study program, one of which is through internships or work practices. The Accounting Study Program of UIN Malang has the opportunity to carry out a work internship program if you look at the many collaborations that have been carried out with partners outside the campus. However, the challenge will be how to design the internship program implementation to meet the learning outcomes made by the study program. Therefore, this research was conducted to design the implementation of MBKM in internships/work practices at the Accounting Study Program of UIN Malang. The research method is qualitative, with data collection techniques using three triangulation techniques: interviews, Focus Group Discussion (FGD), and documentation. At the initial stage, the study program will determine the qualifications of students entitled to apply for an internship program. Initial screening of students is essential to do in order to know the commitment of students to carrying out this Program. At the implementation stage, the adapted learning activities are structured learning activities. Structured learning requires study programs to be more careful in seeing the suitability of Graduate Learning Outcomes (CPL) with internship activities that will later be carried out. In addition, the study program must also be careful in calculating the allocation of work internship time according to the weight of credits per course. Therefore, there is a need for an agreement or a matching process between the study program and apprentice partners. At the final stage, the monitoring and evaluation process must be carried out to determine the progress or increase in the competencies possessed by students during internships at the company. The monitoring and evaluation process also determines the fulfillment of study program learning outcomes.

Keywords: Implementation Design, Independent Learning, Independent Campus, Internships/Work Practices, Study Programs.



The Effectiveness Book Development of 4C-Based for Qawaid Nahwiyah Learning in Pesantren Salaf

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ABSTRACT

Arabic language is the main key of religious science. Qawaid is the most important major branch of sciences in Arabic language teaching. An education which requires 4C skills involves critical thinking, communication, collaboration, and creativity. Based on the data obtained from observation and interview at PPSP Al-Ishlahiyah Malang, the 4C skill are needed for the learning because 80% of the students are university students. Therefore, this study aims to describe the effectiveness of the the complementary book development of a 4C-based Imrithi book for grammar learning at PPSP Al Ishlahiyah Malang city. The approach applied in this study is qualitative and quantitative research which the data were collected through observation, interviews, questionnaires. The data and data sources of this research are qualitative data that comes from qualitative data sources such as observations, interviews, etc. second quantitative data come from quantitative data sources such as questionnaire results, etc. The results of the study show that the effectiveness of the companion book, the t-test result of the pre-test and post-test was -3.849 and the sig value. (2-tailed) was 0.003. This results indicate that the value of the sig. (2-tailed) < 0.05 then H₀ is rejected and H_a is accepted, which mean that 0.003 < 0.05 . Therefore, the 4C-based Imrithi complementary book is effective to be used in grammar learning (Qawaid Nahwiyah).

Keywords: The Effectiveness Book Development 4C-based learning, *qawaid nahwiyah*



Creative Economy Development Of Sustainable City Development Communities Based On Penta Helix Model

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ABSTRACT

Creative industries play an important role in the economic growth of a nation, can create a business climate, employment opportunities, foster innovation and creativity, to create renewable resources. Creative economy is one sector of the economy that uses ideas and knowledge of the concept of creativity from humans who act as the main production factor. The road corridor as an area of the community's creative economy, the wheel of the community's economy. The role of the creative community is very important to improve the community's economy in realizing the corridor (small road) can be an infrastructure that functions to improve the economy of the community as residents (Sujatini, S., 2019). The purpose of this study was to determine and analyze the development of the creative economy of the densely populated village community based on the pentahelix model through home-based IKM (Small and medium industry). Data collection techniques used in this study were observation, interviews, documentation, and literature studies. This study uses the concept of implementing the Penta Helix theory.

Keywords: Creative Economy, Villages, IKM, Penta Helix Model.



Evaluation of the ability of national KSM participants in solving Physics

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ABSTRACT

Exploratory questions are questions that develop aspects of student thinking that connect and relate to the prerequisite materials, conclude and conduct logical analysis, make mathematical models, formulate conjectures, arrange patterns or regularities and abstract. During the 2022 Madrasah Science Competition (KSM) activity, there was one Junior High School level Science Physics exploration question that was tested at the final, which was attended by 34 student representatives from provinces in Indonesia. Based on the evaluation, there were only two participants who got scores above 50, this shows that in general the ability of the participating students is relatively low, so that special coaching is needed in solving exploratory problems.

Keywords: Ability; Madrasah Science Competition; Solving Physics Exploration Questions