

*Ideas for Sustainable
Green Energy*

BOOK OF ABSTRACTS

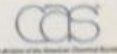
ANNUAL APPLIED SCIENCE AND ENGINEERING CONFERENCE

Universitas Pendidikan Indonesia
Bandung, Indonesia
April 18, 2018

AASEC ANNUAL APPLIED SCIENCE AND
ENGINEERING CONFERENCE



SCOPUS



Clarivate
Analytics

DOAJ

EBSCO

Engineering Village

Google

IET Inspec

ProQuest



LIST OF COMMITTEE

Conference Chair:

Dr. Ade Gafar Abdullah, M.Si.

Co- Conference Chair:

Ari Arifin Danuwijaya, M.Ed.

Advisory Boards:

Prof. Dr. Wahyu Widada, Universitas Bengkulu

Prof. Dr. Muhammad Ali Ramdhani, M.T., UIN Sunan Gunung Djati Bandung
Dr. Hadi Kuncoro, M. Farm., Apt., Universitas Mulawarman
Dr. Astri Rinanti, MT., Universitas Trisakti

Dr. Hilmi Aulawi, M.T., Sekolah Tinggi Teknologi Garut

Dr. Juniastel Rajagukguk, M.Si., Universitas Negeri Medan

Dr. Ir. Herman S., MBA., Universitas Komputer Indonesia

Dr. Endarto Y Wardhono, Universitas Sultan Ageng Tirtayasa, Banten
Dr. Niken Subekti, MSi., Universitas Negeri Semarang

Dr. Sudi Dul Aji., Universitas Kanjuruhan Malang
Dr. July Hidayat, M.Sn., Universitas Pelita Harapan

Dr. Jarman Arroisi, M.A., Universitas Darussalam Gontor Ponorogo
Dr. Ir. Suharsono., UPN Veteran Yogyakarta
Dr. Setia Budi, M.Sc., Universitas Negeri Jakarta

Dr. Ade Yeti Nuryantini, S.Pd., M.Pd., M.Si., UIN Sunan Gunung Djati Bandung
Dr. Bebeh Wahid Nuryadin., UIN Sunan Gunung Djati Bandung
Dr. Melati Ferianita Fachrul, MS., Universitas Trisakti

Dr. rer.nat. I Gusti Ngurah Agung Suryaputra, S.T., M.Sc., Universitas Pendidikan Ganesha
Daniel Sutopo Pamungkas, PhD., Politeknik Negeri Batam

Cynthia Wuisang, ST, MURbHabMgt., PhD., Universitas Sam Ratulangi Ir.
Isri Ronald Mangangka, M.Eng., Ph.D., Universitas Sam Ratulangi

Scientific Committee

Prof. Dr. Asep Kadarohman, Universitas Pendidikan Indonesia, Indonesia
Prof. Dr. Didi Sukyadi, M. A., Universitas Pendidikan Indonesia,
Indonesia Prof. Dr. Anna Permanasari, Universitas Pendidikan Indonesia,
Indonesia Prof. Dr. Sumarto, Universitas Pendidikan Indonesia, Indonesia

Prof. Dr. M. Syaom Barliana, Universitas Pendidikan Indonesia, Indonesia
Prof. Dr. Ratih Hurriyati, Universitas Pendidikan Indonesia, Indonesia Dr.
Ir. Taufiq Saidi, M. Eng., Universitas Syiah Kuala, Indonesia

Dr. Erfan Handoko, M.Si., Universitas Negeri Jakarta, Indonesia
Dr. Hilmi Aulawi, MT., Sekolah Tinggi Teknologi Garut, Indonesia
Dr. Astri Rinanti, MT., Universitas Trisakti, Indonesia

Dr. Prantasi H. Tjahjanti, Universitas Muhammadiyah Sidoarjo, Indonesia Dr.
Rositayanti Hadisoebroto, ST., MT., Universitas Trisakti, Indonesia Erfan
Rohadi, ST., M.Eng., PhD. b., Politeknik Negeri Malang, Indonesia Indrazno
Siradjuddin, ST, MT, PhD., Politeknik Negeri Malang, Indonesia Irwan
Alnarus Kautsar, Ph.D., Universitas Muhammadiyah Sidoarjo, Indonesia

Muhammad Nur Hudha, M.Pd., Universitas Kanjuruhan Malang, Indonesia

Organizing Committee

Dr. Eng. Asep Bayu Dani Nandiyanto, M.Eng. – Universitas Pendidikan Indonesia
Dr. Isma Widiaty, M.Pd. – Universitas Pendidikan Indonesia Tutin Aryanti, Ph.D
– Universitas Pendidikan Indonesia

Cep Ubad Abdullah, M.Pd. – Universitas Pendidikan Indonesia
Agus Juhana, S.Pd – Universitas Pendidikan Indonesia Diky
Zakaria, S.Pd – Universitas Pendidikan Indonesia

Nia Amelia, S.Pd – Universitas Pendidikan Indonesia
Wildan Arrasyid, S.Pd – Universitas Pendidikan Indonesia

TABLE OF CONTENTS

[Historical aspect of mathematics on Indonesian mathematics textbook](#)

R Ekawati, S Fiangga and T Y E Siswono

[Multimedia learning to overcome anxiety and mathematics difficulty](#)

H M D Soewardini, M Meilantifa and H Sukrisno

[Maple app: specifies the vector derivative](#)

R L Ariany, T T Widiastuti A, E Farlina, T K Rachmawati and J Juariah

[Mathematics teaching Aids to improve the students abstraction on Geometry in Civil Engineering of State Polytechnic Malang](#)

M L Dewi, A R Hakim, A Setiawan, S Adhisuwignjo and E Rohadi

[Single population modelling on predicting global carbon dioxide concentration](#)

A Rukmananda and C Barenz

[The effectiveness of vaccine in the outbreak of diphtheria: mathematical model and simulation](#)

F Ilahi and A Widiana

[Application of Markov Chain to stock trend: A study of PT HM Sampoerna, tbk.](#)

A Fitriyanto and T E Lestari

[Improving mathematical understanding ability student through study of mobile learning mathematics base on the Android](#)

A Jihad, W Susilawati and N Sobarningsih

[The effect of infrastructure and human resources on the higher education services output](#)

E R Wulan, A Muhyiddin, H Ainissyifa and M A Ramdhani

[Ordinary differential equations: students' difficulty in solve the algorithm of the initial value problem with the integrating factor method](#)

E Farlina, T K Rachmawati, R L Ariany, T T Widiastuti A and N Sobarningsih

[The development of Adobe Flash-based interactive multimedia to enhance students' mathematical communication skills](#)

W Susilawati, I Maryono and S Maimunah

[Radiological safety analysis of the SAMOP reactor experimental facility](#)

S Syarip, E Supriyatni and R Ridhani

[Economic dispatch and operating cost optimization for thermal power in 500 KV system using genetic algorithm \(GA\)](#)

N M Azkiya, A G Abdullah and H Hasbullah

[Moment of inertia: development of rotational dynamics KIT for physics students](#)

D Mulhayatiah, H Y Suhendi, R Zakwandi, Y Dirgantara and M A Ramdani

[Physics concept on flood mitigation in West Java](#)

C Rochman, R N Yulianti, D Nasrudin and A Malik

[High school physics teacher's competences in designing physics lesson plan for improving student's energy literacy](#)

S Sukendar and A Setiawan

[Measuring the coefficient of emissivity using thermal radiation equipment SNR V-1.4 SL](#)

A Malik, R Zakwandi, S Nurfalah, N Nurhayati, C Rochman and D Nasrudin

[Physics on soil erosion in Batang Sinamar, West Sumatra](#)

D Nasrudin, R Zakwandi, S Putra, C Rochman and A Malik

[Chemical physics in the process of making handicraft Pandanus tectorius and its local wisdom](#)

D Nasrudin, C Rochman, E K Yuningsih, I Helys and A Hasanah

[Effects of ozone-washing in a series of ozonation methods for inhibition of total microbial growth in some varieties of chili \(*Capsicum annum L.*\)](#)

E Sasmita, A I Susan, E Yulianto, M Restiwijaya, A W Kinandana, F Arianto and M Nur

[Ozone immersion treatment to increase the shelf life of Tuna fish, milk fish, and shrimp in a cold storage system](#)

Y Yuliani, M Puspita, M Nur, T W Agustini, E Yulianto, A I Susan, I Zahar and B Suraya

[Determination of growth and production responses of shallot \(*Allium cepa L.*\) due to corona plasma irradiation](#)

I Puspitasari, E Prihastanti, D T Sugianto, A I Susan, E Yulianto, F Arianto, E Sasmita and M Nur

[The simulation of a symmetric quantum key distribution](#)

M Delina, B H Iswanto, H Permana and S Muhasyah

[Comparison between corona and dielectric barrier discharges plasma using of pin to single and dual ring electrodes configuration](#)

S Sumariyah, I Hanafi, Z Muchisin, F Arianto and M Nur

[Dielectric barrier discharge plasma application to convert used cooking oil into biodiesel](#)

M Nur, T Suhartatin, Z Muchisin and J P Wibawa

[The computation parameters optimizations for electronic structure calculation of \$\text{LiPb}_3\$ perovskite by the density functional theory method](#)

P Pitriana, T D K Wungu, H Herman and R Hidayat

[Preliminary studies of \$\text{Mn}_{\(x\)}\text{Zn}_{\(2-x\)}\text{FeO}_4\$ \(\$x = 0\$ dan \$0.1\$ \) thick film semiconductors as an ethanol gas sensor](#)

H Aliah, D G Syarif, R N Iman, W Darmalaksana, A Setiawan and A Sawitri

[Influence of learning model and learning motivation to learning outcome of micro hydro power plant](#)

R Rusmono, S Sulardi and S Suyitno

[Prevalence faltfoot in primary school](#)

N P D Witari, P N Cahyawati and A Lestarini

[Application of adaline artificial neural network for classroom determination in elementary school](#)

A N Handayani, A D Aindra, D F Wahyulis, S Pathmantara and R A Asmara

[MURRDERR strategy in developing mathematical investigation thinking skill of elementary school pre-service teacher](#)

M Maulana, N Hanifah, A N Aeni, J Julia and A A Syahid

[K-means method with linear search algorithm to reduce Means Square Error \(MSE\) within data clustering](#)

S Sriadhi, S Gultom, M Martiano, R Rahim and D Abdullah

[The Implementation of Breadth First Search in Determining of Waris](#)

O T Kurahman, Y A Gerhana, F A Perdana, U Syarifuddin, S Khosyi'ah, N Lukman and I Taufik

[Java character recognition using Hopfield network](#)

W Widodo, R A Priambodo and B P Adhi

[Association rule algorithm with FP growth for book search](#)

T Andi and E Utami

[Android-based monitoring applications of students' learning outcomes](#)

P Sulistyowati, L Setyaningrum, F N Kumala and M N Hudha

[The smart method to support a decision based on multi attributes identification](#)

Y S Dwanoko, F Y Habibi, H L Purwanto, I K Swastika and M N Hudha

[Analysis of Artificial Bee Colony algorithm for optimizing lecture schedule based on willingness of teaching submission](#)

C N Alam, D Maylawati, M R Al-fayumi and M A Ramdhani

[The prediction of scholarship recipients in higher education using k-Nearest neighbor algorithm](#)

D Kurniadi, E Abdurachman, H L H S Warnars and W Suparta

[Profession recommended system for higher education students using Bayesian method](#)

V R Palilingan and J R Batmetan

[Expert system for determining the type of cats and how to care them](#)

H Mustafidah, R Amin and V A N Fatimah

[The concept of sequential pattern mining for text](#)

D S Maylawati, H Aulawi and M A Ramdhani

[The concept of frequent itemset mining for text](#)

D S Maylawati

[Computer speech recognition to text for recite Holy Quran](#)

Y A Gerhana, A R Atmadja, D S Maylawati, A Rahman, K Nufus, H Qodim, Busr and M A Ramdhani

[Edugame for prevention of dengue fever diseases](#)

D Tresnawati

[A hybrid cryptosystem based on zig-zag algorithm and Rivest Shamir Adleman \(RSA\) algorithm](#)

D Rachmawati, M A Budiman and R S Lubis

[Comparison of Naive Bayes and K-Nearest Neighbor methods to predict divorce issues](#)

M Irfan, W Uriawan, O T Kurahman, M A Ramdhani and I A Dahlia

[The comparison of decision tree and k-NN to analyze fertility using 2 different filters](#)

N Rochmawati, H B Hidayati, Y Yamasari, I G P Asto and L Rakhmawati

[Analysis of determinant factors of e-Government implementation](#)

M A Ramdhani, H Aulawi and D Gojali

[A preliminary investigation of information system using Ishikawa diagram and sectoral statistics](#)

R Cahyana

[Migration planning for e-Government](#)

L Fitriani

[Content website of small and medium enterprises](#)

E Satria

[Script knowledge representation in game designing for instructional media](#)

D D S Fatimah

[Impact of private editor article citations to journal citation: a case of Indonesian accredited "A" journals](#)

D Muriyatmoko and H Setyaningrum

[Song creation by using computer music notation](#)

J Julia, P D Iswara and T Supriyadi

[Selecting elicitation technique on requirements elicitation process: A case study on education application for children](#)

M K Sabariah, P I Santosa and R Ferdiana

[Internet of things for automatic garage doors using ESP8266 module](#)

W Uriawan, W B Zulfikar, R M Sofa and M A Ramdhani

[Design of expert system for owning motorcycle with Naive Bayes classifier](#)

M Irfan, W B Zulfikar, C N Alam and M A Ramdhani

[An approach for teacher recruitment system using simple additive weighting and TOPSIS](#)

W B Zulfikar, A Wahana, D S Maylawati, I Taufik and H S Hodijah

[Enhanced shalat and wudhu learning media through speech recognition application](#)

W B Zulfikar, U Syaripudin, O T Kurahman and M F Junjunan

[Designing instructional multimedia system for scout activities](#)

D D S Fatimah, R Kurniawati, D Tresnawati and A M Ramdan

[Estimated software measurement base on use case for online admission system](#)

D Kurniadi, A Mulyani, Y Septiana and H Aulawi

[View abstract](#) [View article](#) [PDF](#)

[Latin to Sundanese script conversion using Finite State automata algorithm](#)

C Slamet, Y A Gerhana, D S Maylawati, M A Ramdhani and N Z Silmi

[Design of geographic information system for tracer study](#)

L Fitriani, D Tresnawati and S Rahayu

[Identification of sugarcane maturity scale based on RGB, Gabor feature extraction and Support Vector Machine](#)

C Rahmad, F Rahutomo, M A Gustalika and I F Rahmah

[Oil palm fresh fruit bunch ripeness classification using back propagation and learning vector quantization](#)

F Fahmi, H Palti M, S Emerson P and S Suherman

[Mindfulness in high-reliability health care: a glance into Bali international medical centre](#)

M U Rimayanti and M I Wijaya

[Simulation study of singular spectrum analysis from time series data with outlier](#)

G Darmawan, D Rosadi and B N Ruchjana

[A survey on language learning through song-based information technology](#)

P D Iswara, J Julia and T Supriyadi

[Classification of Dengue Haemorrhagic Fever \(DHF\) using SVM, naive bayes and random forest](#)

R Arafiah, F Hermin, I R Kartika, A Alimuddin and I Saraswati

[Preparation of chitosan composite film using activated carbon from oil palm empty fruit bunch for Cd²⁺ removal from water](#)

Rahmi

[Classification of pork and beef meat images using extraction of color and texture feature by Grey Level Co-Occurrence Matrix method](#)

R A Asmara, R Romario, K S Batubulan, E Rohadi, I Siradjuddin, F Ronilaya, R Ariyanto, C Rahmad and F Rahutomo

[Instructional development of tie dye creation for elderly using a video tutorial](#)

A Oetopo, D N Musnir and Y Yufiarti

[Analysis of magnesiums mechanical properties through tensile test](#)

U Sumirat, A Djohar, I Kuntadi and S Supriatno

[Formation of electrodeposited Ni-TiAlN/Si₃N₄ composite coating: effect of Si₃N₄ concentration](#)

E Budi, I Sugihartono, W Indrasari, Y Ermadiana, D Syafindra, A Fikry and Y Oktaviani

[Investigating the effect of eggshell burning temperature on the mechanical properties of artificial teeth](#)

A Sabir, H Abbas, Y Aminy and S Akmal

[Crystal structure analyses of ZnO nanoparticles growth by simple wet chemical method](#)

I Sugihartono, D Dianisya and I Isnaeni

[Isolation of cellulose from salacca midrib fibers by chemical treatments](#)

V Yudha, H S B Rochardjo, J Jamasri, R Widyorini, F Yudhanto and S Darmanto

[Preparation of reduced Graphene Oxide \(rGO\) assisted by microwave irradiation and hydrothermal for reduction methods](#)

S Setiadji, B W Nuryadin, H Ramadhan, C D D Sundari, T Sudiarti, A Supriadin and A L Ivansyah

[The variations ITO concentration for observed properties of conductivity of polymer liquid crystal of cholesteryl acrylate-indium tin oxide](#)

A Afrizal, A Rahman, Y Ai and E Handoko

[Electromagnetic wave absorbing properties of husk silica-based SiO₂/Fe₃O₄/UPR composite](#)

Y Yusmaniar, W Ari A, D K Hutomo and E Handoko

[Development of paper indicator from sambang colok \(Aerva sanguinolenta\) plant extract](#)

S Sopiah, S Sari and N Windayani

[Challenge sodium lignosulfonate surfactants synthesized from bagasse as an injection fluid based on hydrophil liphophilic balance](#)

R Setiati, S Siregar, T Marhaendrajana and D Wahyuningrum

[Synthesis of zeolite ZSM-11 using bamboo leaf as silica source](#)

S Setiadji, I S Nurazizah, C D D Sundari, W Darmalaksana, D F Nurbaeti, I Novianti, T B N Azizah, D Abdurrahman and A L Ivansyah

[The effect of kefir whey addition on soap characteristics](#)

I Helsy, I F Faozah H A, N Windayani and D Nasrudin

[Analysis of critical thinking skills in chemistry learning by using mobile learning for level x](#)

U Cahyana, E Fitriani, R Rianti and S Fauziyah

[Corrosion inhibition using lignin of sugarcane bagasse](#)

P P Rahayu, C D D Sundari and I Farida

[An approach to determine the concentration of coloured solution using android smartphones](#)

F S Irwansyah, I Susilawati, I Fitriyati, I Farida, B W Nuryadin and M A Ramdhani

[The development of buffer solution material through flipped classroom model](#)

C Z Subarkah, U Supiandi and S Sari

[Characterization of sunscreen cream containing benzophenone-3,3',4,4'-tetracarboxylate dianhydride](#)

A D Djalil, T Ambarwati and E Genatrika

[Application of thin layer chromatography-densitometry method for analysis of metoprolol in plasma and urine](#)

P Utami, L Alfiyah and D Estika

[Preparation of chitosan composite film using activated carbon from oil palm empty fruit bunch for Cd²⁺ removal from water](#)

Rahmi

[Development of generic science skills on determination of mineral chloride levels in packed drink using inquiry guided laboratory](#)

S Yulia, S C Zenab and H Dinar

[Immunogenicity evaluation of recombinant fim-c salmonella typhi protein as typhoid vaccine candidate on wistar rat](#)

M Nurjayadi, I R Kartika, F Kurniadewi, N Nurasih, D Ariastuti, A Sulfianti, K Agustini and W M Wardoyo

[Development of Android-Based Mobile learning media on Atomic Structure and Periodic Table](#)

U Cahyana, M Paristiowati and S Fauziyah

[Extraction of natural dye powder from morinda *citrifolia* and its application as antibacterial dyes for cotton fabrics](#)

A Rahman, M Muktiningsih, F L Andika, I Kartini and R Slamet

[Evaluation of primer detection capabilities of fimC Salmonella typhi using real time PCR for rapid detection of bacteria causes of food poisoning](#)

M Nurjayadi, N Islami, Y P Pertiwi, V Saamia and I M Wirana

[The effectiveness of flipped classroom in high school Chemistry Education](#)

H Syakdiyah, B Wibawa and H Muchtar

[The Growth of FeCoNi nanoparticles Electrodeposited from CTAB-assisted Sulfate Electrolyte](#)

S Budi, A Afrizal, E Handoko and R Fahdiran

[Effect of various lighting colours treatment at growth and flowering of *Chrysanthemum Morifolium*](#)

L Kamelia, L Chaidir, A Ainas, S Nurdianawati and I F Fauzi

[Learning development model biological material "flowers wijaya kusuma \(*Epiphyllum anguliger*\)" by using augmented reality media to facilitate independent learning students](#)

S Wilujeng, D Chamidah and E Wahyuningtyas

[Effect of different extender on the quality of sexing sperm before freezing in limousin cattle](#)

E D Kusumawati, S Rahadi, N Isnaini, S Wahjuningsih, A G Abdullah, R Agustina and T Susilawati

[Molecular species of *Diaphanes* sp from Nusa Kambangan Island as a source of luciferase molecular marker on cancer diagnostic](#)

R Puspitaningrum, Y Rustam, T Handayani, N Mudjihartini and G D Junihadi

[Polyisoprenoids profile and composition from selected plant Sapotaceae family](#)

M Basyuni and R Wati

[Isolation and characterization of aflatoxigenic *Aspergillus* spp. from maize of livestock feed from Bogor](#)

D Sukmawati, A Setyaningsih, T Handayani K, S Rahayu, Y Rustam, M Moersilah, P Wahyudi and S N A Husna

[Palatability level of cajuput leaf waste by addition of concentrate as feed substitution for sheep](#)

A Widiana, D F Nur R, R M Hasby and I Hernaman

[Minimum viable population estimation of Timor Deer \(*Rusa timorensis*\) base on demographic parameters](#)

A Yuliawati, T Kurniati, Y Santosa and A M Thohari

[Tannin as a feed additive for mitigating enteric methane emission from livestock: meta-analysis from RUSITEC experiments](#)

A Jayanegara, M Ridla, E B Laconi and N Nahrowi

[Feeding rate of subterranean termites in wood treated with smoke wood and borax](#)

Ni Subekti, F Fibriana and P Widiyaningrum

[Growth and yield of chili on post-mine sandpits treated by Arbuscular Micorhizal fungi and organic matter](#)

C Hidayat, Y Setiati and P Gustini

[Growth and yield of hydroponic watermelon with straw compost substrate and gibereline \(GA3\) application](#)

B Frasetya, N Nurfatha, K Harisman and M Subandi

[Molecular analysis of candida albicans Secreted Aspartyl Proteinase 3 \(SAP3\) Indonesian isolate](#)

A T Permata, A A Prasetyo and S Haryati

[Construction and molecular analysis of hepatitis B virus core 1-144 + human immunodeficiency virus Gag recombination from Indonesian isolates](#)

A A Prasetyo, A T Permata and M Marwoto

[Interleukin-6-174 promoter polymorphism and susceptibility to hepatitis B virus infection in Javanese individuals](#)

A A Prasetyo, M Marwoto and W Monica

[Cloning and molecular analysis of Toxoplasma gondii Surface Antigen 2 \(SAG2\) gene cloned from Toxoplasma gondii DNA isolated from Javanese acute toxoplasmosis](#)

W Monica, A A Prasetyo and S Haryati

[The comparison of cocoa growth in different vegetation compositions](#)

E Prihastanti and Y Nurchayati

[Effect of combination of NPK and nano silica on the levels of \$\beta\$ -carotene and nutritional value of corn \(*Zea mays* L.\)](#)

E Prihastanti, A Subagyo and N Ngadiwiyanana

[In vitro gas production of legume *Bauhinia purpurea*, *Cassia alata* and *Macroptilium atropurpureum*](#)

A Ikhwanti, I G Permana, Y Retnani, A A Samsudin and A Jayanegara

[Effectiveness of tofu waste for decreasing chlorogenic acid of robusta coffee \(coffee robusta Lindl.Ex De Will\)](#)

A R Sulistyaningtyas, E Prihastanti and E D Hastuti

[Adaptation of acid-tolerant *Leucaena leucocephala* cv Tarramba Calluses after gamma irradiation on regenerative media](#)

M F Latief, P D M H Karti and I Prihantoro

[Effect of Zeolite size measures and urea fertilizers to growth and yield endive Plant \(*Cichorium endivia* L.\)](#)

D Lestia, A Taofik and H Aliah

[Role of nitrogen and phosphate dynamics to increase plant survival grown on oil contaminated soil](#)

Y S Rahayu, Y Yuliani, G Trimulyono, E Ratnasari and S K Dewi

[Identification of bacteria on Cockroach feet from Hospital area in Palu city and test of sensitivity to antibiotic](#)

P M A Astiti, M Bialangi and I N Kundera

[Distribution Of Brittle Star \(Ophiuroidea\) on Rancabuaya Coastal Areas, Garut, West Java](#)

E Paujiah, I Kinasih, P Hawa, A Widiani, T Kurniati and T Cahyanto

[Screening the capabilities of Indonesian indigenous mold in producing cellulase enzyme](#)

D Sukmawati, D Dellanerra and A Risandi

[Histomorphology of testis in male mice \(*Musmusculus albinus*\) post given the aqueous seed extract of neem \(*Azadirachta indica* A. Juss\)](#)

E Lisanti, D Sajuthi, M Agil, R I Arifiantini and A Winarto

[Students' view of environmental awareness and energy conservation activities in campus](#)

L Rosdiana, Y S Rahayu, H Subekti and D A P Sari

[The effect of use of tofu dregs fermented on feed efficiency and growth of African cat fish \(*Clarias gariepinus*\)](#)

S Suwarsito and C Purbomartono

[Genetic diversity of cinnamon plants \(*Cinnamomum burmanii* BL.\) at various altitude based on morphological character](#)

L Lizawati, A Riduan, N Neliyati, Y Alia and D Antony

[Bio-psychology review on Low Level Laser Therapy management to overcome the condition of elephantiasis in chronic filariasis](#)

A Sulianti, R Agoes, D Hilmanto and T S Adikara

[Habits of happy brain to develop the culture of Quran literacy](#)

A Sulianti, E Djuliawati and S Sulasman

[The development of BOT API social media Telegram about plant hormones using Black Box Testing](#)

Y S Rahayu, S C Wibawa, Y Yuliani, E Ratnasari and S Kusumadewi

[Bio-Psychology of Lip-sync method for shaping the character of Quran memorized pronunciation](#)

A Sulianti, T Tarsono, T Augustiya and W Darmalaksana

[Growth responses of alfalfa \(*Medicago sativa* \(L.\) as affected by gamma irradiation](#)

M Natsir, I Prihantoro and P D M H Karti

[Prevalence of intestinal helminth parasites in wild and soft-release Bornean Orangutan \(*Pongo pygmaeus*\) in Lamandau Wildlife reserve, Central Kalimantan](#)

M Zulfikri, Y Ridwan and U Cahyaningsih

[How to inhibit the habit of masturbation in cybersex adolescents, from bio-psychological approach?](#)

A Sulianti, I Sunardi, W Hernawan, W P Anggraeni, Z R Adawiyah, F N F Ramadhan and I Fauzi

[Can emotional intelligence restrain excess celebrity worship in bio-psychological perspective?](#)

A Sulianti, F S Lubis, F Az-Zahra and A Hambali

[PCA \(Principal Component Analysis\) application to differentiate hybrid and pure black-winged myna \(*Acridotheres melanopterus*\)](#)

R E Vernia, A Tritto, A Abinawanto, N Winarni, A Mayasari, A Sedayu and A Bowolaksono

[Differentiating hybrid and juvenile of black-winged myna \(*Acridotheres melanopterus*\) by using morphometric data](#)

R E Vernia, A Tritto, A Abinawanto, N Winarni, A Mayasari, A Sedayu and A Bowolaksono

[The postpartum anestrus period of lowland anoa \(*Bubalus depressicornis*\) in captivity](#)

A Mayasari, A Suryawan, J E Halawane, J Kinho, R E Vernia, A Abinawanto, A Suryanda and A Bowolaksono

[Pharmacokinetic aspect of *Carica papaya* leaf extract after oral administration](#)

W H Nugrahaningsih, N Paramitha, L Lisdiana and Ely Rudyatmi

[Correlation of Eosinophil and Basophil count with intensity of soil transmitted helminth infection among farmers in Bali](#)

P I B Apsari, H Arwati and Y P Dachlan

[Music therapy on sleep quality in elderly](#)

A Lestarini and K S P Putra

[Titer of anti-HBs antibodies following a booster vaccination among medical students](#)

K T Sumadewi, M J Rachmanu and D P C Udiyani

[A case of imported *Plasmodium Falciparum* chloroquine and Sulfadoxine-Pyrimethamine sensitive in a Finland male presentation](#)

N P D Witari, S Masyeni, N W Rusni, K T Sumadewi, A E Pratiwi and P B Asih

[Upper and lower gastrointestinal endoscopic findings among patients visiting BRSUD Tabanan with various gastrointestinal symptoms: a three year retrospective study](#)

D P Surawan, N W Widhidewi, P A Suryanditha and S Masyeni

[Association between neutrophil to lymphocyte ratio on admission and grace mortality risk score among acute myocardial infarction patient at BRSUD Tabanan in 2017](#)

P G E A Suyasa

[The characteristics of waste product from the process of *pemindangan* in local village Bali](#)

I G S Pandit

[Correlation of enhancement Mean Platelet Volume \(MPV\) with severity of dengue infection](#)

S R Dewi, U Sukorini and U S Intansari

[Hematological and immunological profile of ART-Naïve HIV-infected patients in Bali-Indonesia: a descriptive study](#)

S A Aryastuti, S R Dewi, P N Cahyawati, K Suryana and S Masyeni

[Detection *Escherichia Coli* O157 contamination in soymilk from traditional market at Denpasar City](#)

A A A L Paramasatiari, D M Sukrama and P Sutirtayasa

[Synthesis of \$^{99m}\text{Tc}\$ \(V\)-DMSA and radiolabelling of SPIO nanoparticles](#)

E Sintya

[Nutritional status of children in Bali-Indonesia](#)

D A A A S Astini

[Relationship between work position and the occurrence of low back pain among aircraft maintenance engineer of PT. GMF AeroAsia at Ngurah Rai International Airport](#)

N W V Aparajita and D A A A S Astini

[The relationship between self-regulated learning and academic achievement of undergraduate medical students](#)

R K Ningrum, A Kumara and Y S Prabandari

[Increasing trend of penile cancer cases in Bali compared to other regions in Indonesia](#)

D P O Lestari and N W Armerinayanti

[Anaerobic capacity and blood lactate level of former elite athletes](#)

N Nasuka, I Santosa, A Setiowati and F Indrawati

[Application of model development of soccer physical tests](#)

H Hartati, A R Victorian, S Aryanti, D Destriana and D Destriani

[The development of instructional media for rhythmic gymnastics in physical education course](#)

A Suherman, J Julia and T Supriyadi

[Green advertising, green brand image and green awareness for environmental products](#)

D P Alamsyah, T Suhartini, Y Rahayu, I Setyawati and O I B Hariyanto

[Development of lecturer capacity in higher education: solution reduces burn out by design E-Tri-Angle](#)

H Sukrisno, L T Muharlisiani and D Chamidah

[Public service motivation and job satisfaction as predictors of organizational citizenship behaviour](#)

H S Wanto, A Arfah and E Siswati

[Promoting local culture through digital learning media](#)

E E Nikmawati, I Widiaty, R Hurriyati, Y Achdiani, S R Mubaraq, A R Islami and M A Latif

[Analysis of eco-friendly preference and eco-friendly product quality; their implications to customer satisfaction](#)

D S Soegoto

[Going paperless: executive information system toward digitalized universities management](#)

E S Soegoto and S Luckyardi

[Increasing productivity in SMEs Samiler crackers by implementing appropriate technology](#)

A D Witjaksono, A Susanti and A Frianto

[Online taxi and green sustainable concept: what the literature says?](#)

O C Ambarwati, R A Nugroho and D G Suharto

[Organizational management and employees performance in banking services](#)

R Kurniawati

[The development of market segmentation of sorghum products as functional beverages](#)

E Noerhartati, T Widiartin, M Maslihah and N W Karyanto

[Feasibility study of electricity power plant from biogas by utilizing the liquid waste of palm oil mill in Aceh Province](#)

N Nuaini, H Hamdani and T A Rizal

[Application T-History method on measurement of thermal properties of phase change material as latent heat storage in solar water heating system](#)

R Thaib, M Riza, M Amin and S Rizal

[Numerical study of Savonius wind turbine with additional fin blade using computational fluid dynamic](#)

B Anggara, I Widiastuti and H Saputro

[Reduction in power consumption of refrigerator by using parallel expansion](#)

E T Berman, D Supriawan, M Komaro and M Mutaufiq

[Performance and flow visualization of Sukhoi Su-30MKI like model using GAMA water tunnel](#)

Z Anwar, S Sutrisno, B W Setyawan, R S Firdaus and F N Wega

[Efficiency of material consumption in sustainable conventional machining practices](#)

B R Setiadi, S Setuju, T Sukardi and S Sugiyono

[Experimental study of local pitch variations on electric power generated by counter rotating wind turbine with single generator without gearbox](#)

R Z Muhtadi and M A Bramantya

[Numerical study of gasification pelletized municipal solid waste using multi-stage air inlet downdraft gasifier](#)

A R Saleh, B Sudarmanta and D R Ependi

[The analysis of carbide particles distribution of HSS performances in relation with the machining process in manufacturing workshops](#)

A Setiadi, A Hamdani, A H Sasmita and Y Yayat

[The cooling effectiveness of the V-ixion motorcycle radiator using water coolant variation](#)

A Akbar, R Firdaus and N Cahyono

[Work based learning in motorcycle classroom](#)

D Hafid and A Gafar

[The improvement of synthetic gas quality on the gasification process of palm starch waste through the applied of cyclone separator](#)

H Saputro, S Supriyadi, I Muttaqin, V Fadlullah, L Fitriana, T Firdani, R Muslim, K Khaniffudin, S Lasmini and V L P Sutrisno

[The basic investigation of evaporation rate and burning temperature of various type of liquid fuels droplet](#)

L Fitriana, R A A Nugroho, H Saputro, T Firdani, R Muslim, B W Gumelar, H Setyaningrum, H A Ismunandar, R A Zainudin, W Rahmadi and V L P Sutrisno

[The effect of surface roughness on dynamic behaviour of the successive multiple droplets impacting onto aluminium hot surfaces](#)

M L Hakim, T Wibowo, A Widyatama, D Deendarlianto and I Indarto

[Preliminary study of pellets Refuse Derived Fuel \(RDF-5\) based on Durian waste for feedstock in fast pyrolysis](#)

H Saputro, D N Liana, A Firdaus, M Mahmudin, B Evan, B S Karsa, V L Perdana, D S Wijayanto, H Bugis and L Fitriana

[Gasification modelling method using energy Gibbs minimum of palm starch solid waste](#)

R Muslim, H Saputro, T Firdani, S Lasmini, K Khaniffudin, D S Wijayanto, L Fitriana, F A Munir and V L P Sutrisno

[Numerical simulation analysis on the thermal performance of a building walls incorporating Phase Change Material \(PCM\) for thermal management](#)

H Hamdani, S Rizal and M Riza

[Development of media learning practice welding pipe position vertical axis \(2G\) with Gas Metal Arc Welding process \(GMAW\) in senior high school](#)

Z Mutaqin, S Soemarto and C Suarti

[Hydrate mitigation for subsea production multiphase pipeline by flow assurance approach](#)

K Hartono, M Ginting, D Sulistyanto and R Karono

[Optimization of Empty Fruit Bunches \(EFB\) as a solution to deforestation as a result of the exploitation from the paper industry in Riau of conferences](#)

F S Irwansyah, J Yanto, W D I Azis and Kelvin

[Online based performance assessment for general chemistry laboratory](#)

S Sari, S A Ferawati, I Farida, O Sobandi and R Kariadinata

[Enhanced antibiofouling properties of chitosan-based membranes by coating and blending of Moringa Oleifera L extracts](#)

M K Pratiwi, L Masyrifah, L C Hawa, S R Dewi, N Izza, B D Argo, S Sucipto and Y Wibisono

[Compression strength testing model on clay soil stabilization using variations of cement composition](#)

F Chairuddin and Evelyn

[The potential of styrogravel concrete as a new concrete material for building structures](#)

Soerjandani P Machmoed and Utari Khatulistiani

[Analysis of contractor company requirements on the competence of construction project management for graduates of civil engineering degree](#)

Soepriyono, S Azizah and M Huda

[Public transport service relating to safety](#)

I Farida

[Development of civil engineers' certification system evaluation model](#)

I Wideasanti, R Z Tamin, P F Marzuki and I I Wiratmaja

[Development length on concrete with bundle bars](#)

E Walujodjati

[Enhancing the Strength of Volcanic Mud-based Class C Fly Ash Geopolymer Specimen by Limestone Inclusion](#)

A Wardhono, N Estidarsani and N W Hidajati

[Shear Capacity Analysis of High-Strength Reinforced Concrete Beams using Geopolymer Flyash and Palm Oil Blast Furnace Slag as Additives and Aggregate Substitution](#)

T B Aulia, Muttaqin, M Afifuddin, M Zaki and S Merriza

[Implementation of Transit Oriented Development in Handling Congestion Effect on Urban Sprawl Phenomenon and Traffic Growth in Banda Aceh](#)

N Fadhly and R Matondang

[Development of Smart Infusion Control and Monitoring System \(SICoMS\) Based Web and Android Application](#)

M Yusro and Rikawarastuti

[Based Fuzzy Logic Temperature Control for a Coffee Roaster Machine](#)

M Fauziyah, S Adhisuwignjo, M Rifai and D Dewatama

[Webcam Application for Classrooms Monitoring](#)

A Latifah

[Pan-Tilt Modelling for Face Detection](#)

A Latifah, Saripudin, H Aulawi and M A Ramdhani

[DC Motor Speed Controller Design using Pulse Width Modulation](#)

A Faroqi, M A Ramdhani, F Frasetyio and A Fadhil

[Volcansmart Early Warning Systems Based Land Surface Temperature at the Disaster-Prone Region of Merapi Volcano, Regency of Sleman](#)

S R Marudut, W S Bekti, N A Adi and S D R Suryo

[Effect of alpha value change on thrust quadcopter Qball-X4 stability testing using backstepping control](#)

A T Nugraha, I Anshory and R Rahim

[A Low-Cost Linear LED Driver for Light Bulb Based on Harmonic Standard](#)

M Afif, M Ramdhani, D Darlis and A Rizal

[Very Short Term Load Forecasting Using Hybrid Regression and Interval Type -1 Fuzzy Inference](#)

J Jamaaluddin and I Robandi

[A Robot Compliant Joint Control Development and Simulation using a Linear Control Approach](#)

I Siradjuddin, W T Wahono, A Murdani, S Adhsuwignjoi, A Setiawan, E Rohadi and R P Wicaksono

[Dual-band Rectangular Microstrip Patch Antenna for LTE and BWA Application](#)

N Ismail, F Oktafiani, F Makmur, F D Ramadhan, M A Ramdhani and I Taufik

[Artificial Light Energy Harvester Using Low Start Voltage Solar Cell](#)

H S Adi, R A Priramadhi and D Darlis

[Energy efficient transmitter for guided indoor navigation using visible light](#)

S Afifah, S Angelina, P Susanti, R A Priramadhi and D Darlis

[Application of Bidirectional DC-DC Converter for Saving Energy on Photovoltaic](#)

I Sulistiyowati, H Kurniawan, Jamaaluddin, E A Suprayitno and R Rahim

[Distributed Generators Presence Impact to the Overall System Performance](#)

Z Pane, S Suherman and R Sipahutar

[Frost Preventive Control System of Freezer](#)

E F Kumala, R A Priramadhi and P Pangaribuan

[Fuel Efficiency Improvement with Water Methanol Injection for Internal Combustion Engine](#)

M A A Sidiq, R A Priramadhi and E Susanto

[Design Measuring Instrument Dust Based Internet of Things](#)

S Syahrerini, D Hadidjaja, A Ahfas, A Rahmansyah and S H Pramono

[Analysis of Chilli Plant Physiology Conventional System, Green House Hydroponic Utilization System Using Fuzzy Logic](#)

Alimuddin, D M Subrata, Nurmayulis, R O Khastini and R Arafyah

[Automatic Watering System in Plant House - Using Arduino](#)

M Mediawan, M Yusro and J Bintoro

[Design and Fabrication of a Simple Laboratory Ball Mill for Powder Coconut Shell Preparation as Raw Material of Biochar](#)

M Rosi and S Viridi

[Casting and Welding of Aluminium Matrix Composite Materials Reinforced by SiC Particles](#)

P H Tjahjanti, F Hermansyah, L H Prasetya and M P T Sulistyanto

[Land utilization changing of Pelaba Pura and Druwe Desa on pre and post-reclamation in Serangan Island](#)

I G S Darmawan and I W W Sastrawan

[Changes in Rural Settlement to Improve Ancient Villages Conservation Quality in Bali-Indonesia](#)

A A G Raka and I W Runa

[Implementation of User Anthropometry Bale "Sakenem" Buildings Based on Height Saka Measurement in Singapadu Tengah Village, Gianyar](#)

I W Parwata, M Umiyati and A A G O Wisnumurti

[Conception of Spatial Dualism around the Banyan Tree in Denpasar, Indonesia](#)

I K M Wijaya

[Water Distribution System of Petanu River Estuary for Coastal Area in Bali-Indonesia](#)

I G A P Eryani and A A R S Laksmi

[Physical Exercises Effectiveness in Controlling Diabetes Mellitus in the Elderly Group in Bali - Indonesia](#)

T Subrata, A Lestarini and K Sari

[The Influence of Farmer's Characteristic on \$\phi\$ at 'Simantri' Program in Bali](#)

I G A M P Sanjaya

[The Intensity of Leaf Rust Disease, Growth and Yield of Chrysanthemum on Concentration and Time of Giving *Paenibacillus Polymixa* Biological Agent](#)

A A S P R Andriani, Y P Situmeang, N P A Sulistiawati and G I Setiawan

[Biochar Bamboo Application on Growth and Yield of Red Amaranth \(*Amaranthus tricolor* L\)](#)

Y P Situmeang, M Suarta, I K Irianto and A A S P R Andriani

[The Micronutrient Contents of Composting from Empty Bunch after Added Palm Oil Mill Effluent](#)

I U P Rangkuti, Giyanto, R Novayanty, P M Raja and Zakwan

[Development of SMS Gateway Information System for Detecting Air Quality](#)

Sudarsono, M A Novianta and Purnawan

[An Investigation of Oxygen Need Based on Green Open Space in Indonesia University of Education \(UPI\) Campus Bandung](#)

Sahid, D Rohmat, Y Malik and L Wahyuni

[View abstract](#) [View article](#) [PDF](#)

[In Situ Measurement of Soil Carbon with Depth using Near Infrared \(NIR\) Spectroscopy](#)

B H Kusumo

[Development of Instructional Media Environmental-based Child Blood Type Detector Cardboard \(KAPODA\) Formal and Informal Education](#)

D Yatimah, R Puspitaningrum, Solihin and Adman

[Above-Ground Biomass and Carbon Stocks in Sigogor Mountain Nature Reserve, Ponorogo, East Java, Indonesia](#)

N T Waskitho and J Triwanto

[Design Evaluation of Biological Unit as a Basic Consideration to Determine the Design Criteria of Domestic Wastewater Treatment Plant at 1st Zone, Jakarta](#)

T Tazkiaturrizki, R Ratnaningsih and S Aphirta

[The Urgency of Establishment International Outer Space Authority as Embodiment of Outer Space Environment Protection](#)

T Suharti and M T Kumala

[Combine project management and economic order quantity: Is it valuable on food industry?](#)

L Nurwandi

[Analysis of Lighting Condition in Cutting Area](#)

D Wahyuni, N Panjaitan, I Budiman and M Sitorus

[Improving Innovation Capability Trough Creativity and Knowledge Sharing Behavior](#)

H Aulawi

[DRP: Joint Requirement Planning in Distribution Centre and Manufacturing](#)

I Rizkya, K Syahputri, R M Sari, I Siregar, M M Tambunan and Anizar

[Application of Productivity Index with Craig Harris Method on Tea Product](#)

I Rizkya, K Syahputri, R M Sari, I Siegar, Erwin, U Tarigan and K Siregar

[The Evaluation of Research and Development Division through Product Development Process in Biopharmaceutical Company](#)

E S Hariandja

[Assessment of technology content level with integrated technometrics and Analytical Hierarchy Process \(AHP\) methods in small and medium enterprises](#)

W Sulistiyowati and R B Jakaria

[Innovation and technology diffusion in agricultural sector](#)

H Ainissyifa, E R Wulan, A Muhyiddin and M A Ramdhani

[The determination of regional development priorities](#)

H Aulawi, W A Kurniawan, D M Arifin and E J Hayat

[Indonesian consumer perception of food safety system in fish supply chain](#)

H C Wahyuni, I A Saidi and W Sumarmi

[Green computing on registration system and transaction report in Serviam credit union](#)

D S Bataona, F Liantoni, F E Laumal, R A Wadu, G C Manulangga, P W Sudarmadji and K A T Ole

[Comparison of mobile learning applications in classroom learning in vocational education technology students based on usability testing](#)

Sugiyanto and Agus Setiawan

[Workload self-evaluation base on expert system for vocational teacher](#)

K K M Pajung, Soemarto and A Setiawan

[Build sorghum database for developing SEU digital network on sorghum website of Wijaya Kusuma Surabaya University](#)

T Widiartin and E Noerhartati

[Information system to measure healthy home](#)

N Saurina, E Wahyuningtyas, T S Rini, S W Purwaningrum and F S Rejeki

[Sentiment analysis on Bahasa Indonesia tweets using Unigram models and machine learning techniques](#)

B H Iswanto and V Poerwoto

[Conceptual model of executive information system data \(A Case Study at The State Islamic University of Sunan Gunung Djati Bandung\)](#)

M Irfan, W B Zulfikar, C N Alam, D Saadillah M and R S Fuadi

[Analyzes of cybercrime expansion in Indonesia and preventive actions](#)

M Irfan, M A Ramdhani, W Darmalaksana, A Wahana and R G Utomo

[Architecture of human resource management system at universities](#)

R Setiawan

[Designing library information system using rapid application development method](#)

A D Supriatna

[Designing academic advising information system using prototyping method](#)

A D Supriatna, R Kurniawati and D D S Fatimah

[Feature Extraction ElectroEncephaloGram \(EEG\) using wavelet transform for cursor movement](#)

H Hindarto, A Muntasa and S Sumarno

[Blended learning development for vocational education](#)

Y Sukrawan, Soemarto and M Komaro

[Understanding students behavior during the adoption of modular robotics in learning](#)

F Kamal, C W Budiyanto and A Efendi

[Interaction of traffic police with motorized vehicle control by CCTV](#)

U Enggarsasi and N K Sa'diyah

[Analysis of implementation Augmented Reality \(AR\) introduction of temple and ancient objects based on android to increasing student learning outcomes](#)

R Agustina, E Sutadji, Purnomo, D Suprianto, E Kusumawati, M N D Hudha and M Afif

[Development of instructional multimedia for mathematics based on adobe flash and Wondershare quiz creator](#)

Y N Rahayu, R Kariadinata, Z Fariansyah, R P Yaniawati and H Sugilar

[Internet-based social media and its influence on student behaviour changes](#)

S Sriadhi, S Gultom, R Restu, R Rahim and J Simarmata

[Algebraic experience material with lectors inspire](#)

H Sugilar, I Nuraida, F S Irwansyah and M A Ramdhani

[Developing vocational synthetic video motion learning using motor slider](#)

Tri Wrahatnolo, Setya Chendra Wibawa, Lilik Anifah, IGP Asto Buditjahjanto and Wiyli Yustanti

[Design applications of apprenticeship productive teaching monitoring systems](#)

Kostaman, M S Barliana, A Setiawan and Ana

[Representation of media literacy in the dimensions of social life in Indonesia](#)

K Y S Putri, S B Istiyanto and L Sugiyanta

[The implementation of voice over internet protocol on private automatic branch exchange using analog telephone adapter](#)

Eki Ahmad Zaki Hamidi, Muhammad Ali Ramdhani, Angga Ahmad Nuroh and Mufid Ridlo Effendi

[Teaching network security in Linux using Netkit with implementation virtual laboratory](#)

Y Ariyanto, B Harijanto and Y W Syaifudin

[A comprehensive study on MQTT as a low power protocol for internet of things application](#)

M V Masdani and D Darlis

[Packet size impact on the 802.11 network performances](#)

S Suherman

[Development of virtual laboratory of food microbiology-based websites](#)

F Ramdani, S Handayani and B Firdiana

[Comparing genres of Indonesian literature by utilizing big data](#)

M Rokib, S Anam, E Rahmawati, S Sodik and P Retnaningdyah

[User interface modelling by implementing storytelling on Sundanese cultural introduction media for early childhood using child-centered design method](#)

O D J Ayuningtyas, V Effendy and E R Kaburuan

[Literacy and benefits of OER concept for prospective vocational high school teachers](#)

Saripudin, A Djohar, D Rohendi and A G Abdullah

[Filter bubble effect and religiosity: filter bubble effect implication in the formation of subjects and views of religiosity](#)

T Zakaria, B Busro and S Furqon

[Question-answer pair templates based on bloom's revised taxonomy](#)

C Juliane, A A Armant, H S Sastramihardja and I Supriana

[Determinant factors in multimedia-based e-learning design](#)

M K Umana

[The development of creative instructional program for architecture studio course](#)

H I Dewi, Yufiarti and D N Musnir

[The role of higher education in society activation through digital mural in ASEAN cities](#)

D Trihanondo and D Endriawan

[How important is technological, pedagogical, content knowledge? A literature reviews](#)

J Mupita, I Widiaty and A G Abdullah

[Laboratory management: digital laboratory information system \(DLIS\) concept](#)

I Fushshilat, A Rahmat, Y Somantri and E Haritman

[Electrical fall \(EFA\) as a learning media for electromagnetic induction](#)

E K Yuningsih, M M Chusni and R Sidik

[HATRAVY: a virtual laboratory of heat transfer concept in microscopic form](#)

H Y Suhendi, D Mulhayatiah, R Anjani, M A Ramdani and R Ardiansyah

[Identification of subsurface basement rock using geoelectrical resistivity method in development area \(campus 2 UIN Sunan Gunung Djati Bandung\)](#)

R D Agustina, H Pazha and H Sugilar

[Learning motion through the learning cycle model](#)

S Sari, F F Rengganis, A Saepudin, F S Irwansyah and O Sobandi

[Recovery of soil arthropods after 1-year forest fires in Mount Merapi National Park Yogyakarta](#)

M Sholikha, T S Djohan, J Subagja and T Kurniati

[Sterilization Method of *Etilingera Elatior* Explant on Tissue Culture](#)

L Chaidir, S Isnaini, C Hidayat, S Hasani, N Wicaksana and J Syantiara

[The development of students' entrepreneurial attitudes in the learning of milk kefir processing](#)

R Aisyah, S M Dakhlan and N Windayani

[Adaptive multimedia with android e-assessment to improve assessment efficiency](#)

S D Aji, M N Hudha, C Huda, Z Khoiro, W Wartono, J R Batlolona, S Alfarisa, A B D Nandiyanto and A G Abdullah

[Acceptance finding ability](#)

I Isrokatun, N Hanifah and M Maulana

[Utilization cow urine and liquid organic fertilizer weed to production of tomato varieties timoti F1](#)

Y Setiati, C Hidayat, Y Deriska and M Mulyana

[Influence of sweet potato types on physical and sensory characteristics pure of sweet potato soup \(*ipomoea batatas* L\)](#)

T Setiawati, S Sudewi and A Mahmudatussa'adah

[Development of Standard Operational Procedure \(SOP\) for the implementation of lath machining practice in Vocational High School \(SMK\)](#)

R C Putra, K Sumardi, M Komaro and A G Abdullah

[Development of design monitoring and electricity tokens top-up system in two-ways energy meters based on IoT \(Internet of Things\)](#)

V S Erlinda, A G Abdullah and K Astami

[Photographic skill competency for vocational high school](#)

I Maulana, S Sumarto, D L Hakim and A G Abdullah

[Design and implementation of web-based internship information system at vocational school](#)

Y Yannuar, B Hasan, A G Abdullah, D L Hakim and D Wahyudin

[Requirement analysis of work competence of vocational graduates in heavy equipment industry](#)

E P Asfiyanur, K Sumardi, A Hamdani and A G Abdullah

[Does digital curriculum mapping improve curriculum alignment?](#)

I Khoerunnisa, I Widiaty, A G Abdullah and I Kuntadi

[Application of expert system for education](#)

G Supriyanto, I Widiaty, A G Abdullah and J Mupita

[Automated curriculum alignment standards in K-12 schooling system](#)

M Muktiarni, I Widiaty, A G Abdullah and I Kuntadi

[Increasing dissolution rate of telmisartan tablet by dispersion method](#)

M A Dhina, D A Deswati and S R Mubarq

[Designing a content setting application on youtube in learning batik in a vocational school](#)

I Widiaty, L S Riza, A Ana, A G Abdullah, S R Mubarq and M Abdullah

[Fuzzy system application in education](#)

R Ilahi, I Widiaty and A G Abdullah

[Integrating SAMR learning model in vocational education](#)

A Aprinaldi, I Widiaty and A G Abdullah

[Renewable vs. conventional energy: which wins the race to sustainable development?](#)

A S M Al-Obaidi and T NguyenHuynh

[Waist to height ratio \(0.5\) as a predictor for prediabetes and type 2 diabetes in Indonesia](#)

H S Djap, B Sutrisna, P Soewondo, R Djuwita, K H Timotius, Trihono, S Sharif and Y S Tjang

[Correlation of enhancement Platelet Distribution Width \(PDW\) with severity of dengue infection](#)

S R Dewi, U Sukorini and U S Intansari

[The effects of soursop leaves extract on the islets of *langerhans* of the male *wistar* rats exposed to high fat diet and *streptozotocin*](#)

D A A A S Astini

[Travel related infection among international travellers visiting clinics at Ubud Bali](#)

KT Sumadewi, A Narendrakomaranatha, E Lalita, W Rusni, A E Pratiwi, N P D Witari and S Masyeni

[MMPI-2Dx restructured clinical scale-based psychopathology among opioid dependence inmates in class IIA correctional facility Denpasar](#)

A Primatanti

[Severe falciparum malaria with acute kidney injury: a case report](#)

N M A Kurnianingrum and N P Ayu

[The influence of head lice \(*pediculus humanus capitis*\) infestation to nutritional status and anemia occurrence on female elementary school students](#)

I P Sudayasa, A Arimaswati, M Abdullah and A R Masumi

[Ergonomic approach decrease musculoskeletal complaints and increases productivity of *pindang* producers in Kusamba, Bali](#)

I G S Pandit and P A N K Permatananda

[Relationship between activities specific balance confidence \(ABC\) scale with age and falls on elderly in Wanasraya Nursing Home Denpasar](#)

S Harkitasari

[Urinary stone profile at Tabanan Hospital within July 2014 to June 2016](#)

A N O Diatmika, D Santoso and I B T Yatindra

[Viral subtyping of HIV-1 derived from infected, drug-naive individuals in Jakarta, Indonesia](#)

A M Witaningrum, S Q Khairunisa, S Ueda, M Q Yunifiar, D W Indriati, T Kotaki, A Rusli, N Nasronudin and M Kameoka

[Prevalence of hypertension among adults in Kintamani Subdistrict-Bali](#)

D A I A T Diana and D A A A S Astini

[A rare widespread tuberculous spondylitis extended from the T5-T10 levels – a case report](#)

L G Evayanti, V P Kalanjati and A Machin

[Effect of statin on vascular wall thickness in kidney disease model](#)

P N Cahyawati, N Arfian and N Ngatidjan

[Dosage antioxidant drink sinom of \$\beta\$ cell langerhans islet white mice spraque dawley diabetes mellitus](#)

N K Wiradnyani

[Are there any correlations between embolic stroke and previous post-traumatic epilepsy? – Study from a case report](#)

W Santosa, V P Kalanjati and A Machin

[The quality of life of patients with epilepsy in Denpasar: A cross sectional study](#)

P A N K Permatananda, E Kristin, D Endarhi, R T Pinzon and I K Sumada

[Endovascular laser ablation: minimally invasive intervention for klippel trenaunay syndrome](#)

I G A M A Putra, N A Hidayat and P A N K Permatananda

[Health risks associated with recreational water activities](#)

L S Pakasi

[Sensitization to food and pollen allergens and their implication for travelers with respiratory allergies](#)

I Rengganis and L S Pakasi

[Methylphenidate augmentation during antidepressant treatment for depression in HIV: a case report](#)

A Primatanti

[Explorative study on risky sexual behaviour in tradeswomen in Denpasar city](#)

L G Pradnyawati

[Characteristic of eye disease on foreigners: a study of eye clinics in Bali](#)

N M A Suryathi, I G A M Juliari, Y Khatania, I G A R Suryaningrum and N M A Surasmiati

[Dialysis treatment in Indonesia: focus on Bali](#)

I G R Widiana

[Utilization review inpatient and outpatient of traveller related to thypoid in Bali \(study in two regencies: a case report\)](#)

K T Sumadewi, P A Eka, S Masyeni, N W Rusni and N P D Witari

[The venomous bites and stings: overview for travel medicine physicians](#)

N M D D Sukmawati

[Case report: management of nasal septal deviation with endoscopic septoplasty](#)

A Santosa, D Permatasari and IBS Putera

[Comparison of low and high DNA Purity for quantitative detection of ratio Mitochondrial and Nucleus DNA among Drug-treated HIV Patients by Real-time PCR](#)

S Q Khairunisa, S Masyeni, A M Witaningrum and N Nasronudin

[Cell culture models: Time course of cellular accumulation of ^{99m}Tc-HMPAO](#)

E Sintya

[Ocular Syphilis in HIV-positive Male](#)

I G A M Juliari and N K N Susila

[Rubella infection during first trimester of pregnancy, is it always termination of pregnancy? a case report](#)

R Budayasa

[Problematic issues surrounding deep vein treatment](#)

K Suega

[Students' perception of peer tutor roles in the small group discussion](#)

R K Ningrum

Information System to Measure Healthy Home

Nia Saurina

Department of Informatic Technology, Faculty of Technic, University of Wijaya Kusuma Surabaya, Indonesia.

Email: niasaurina@gmail.com

Emmy Wahyuningtyas

Department of Informatic Technology, Faculty of Technic, University of Wijaya Kusuma Surabaya, Indonesia.

Email: emmycakep@gmail.com

Titien Setiyo Rini

Department of Civil Engineering, Faculty of Technic, University of Wijaya Kusuma Surabaya, Indonesia.

Email: titien.rini@gmail.com

Sri Wulan Purwaningrum

Department of Civil Engineering, Faculty of Technic, University of Wijaya Kusuma Surabaya, Indonesia.

Email: sriwulanpurwaningrum@gmail.com

Fungki Sri Rejeki

Department of AgroIndustrial Technology, Faculty of Technic, University of Wijaya Kusuma Surabaya, Indonesia.

Email: fungki_sby@yahoo.com

Abstract

Background: Healthy home is very important for human life. Benefit for healthy home will protect householder from many diseases based on environment, to find out the percentage of healthy home conducted by survey by Puskesmas officer. Assessment is done by filling the questionnaire by using 3 categories namely the components of the house, sanitation facilities and householder's behavior. These parameters have not been able to assess a house maximally, because it has not involved the habit of householder in involving household waste yet. This study adds three parameters the behavior in processing household waste; drainage; and physical path. These additional parameters have been approved by the head of the health office in Kabupaten Ngawi.

Method: Subjects in this study is information system to measure of healthy homes. This research method is conducted by identifying problems, data collection through interview. The process model used in this research is waterfall model while decision making method use analytical hierarchy process (AHP).

Result: The research created resulted in a design to measure healthy home determination that can be used as prototype for the construction of decision support system of healthy home determination.

Keywords: information system, AHP, healthy home

1. Introduction

The home is an important place for the people. It not only affects the overall quality of life but is also a place where many people (especially older) spend a large part of their time. It is self-evident that constantly improving and developing this area of life takes an important role. A step in this direction are the so-called smart home environments [1]. Proper adequate housing is still a big issue in the world today, especially in developing countries including Indonesia. The 2010 National Socioeconomic Survey mentioned that Indonesia was one of the countries with the highest relative minimum wage in the world with the percentage reaching around 65% of the average wage of salaried workers [2]. On the other hand, the dense population in Indonesia, partly due to urbanization, leads to high housing prices. These factors lead to the condition in which middle-to-low income earners have difficulty in buying houses [3]. In 2000 about 25% of all households in Indonesia lived in houses below the ideal size of 10 m² per person as stipulated by the World Health Organization (Ministry of Environment, 2002). In 2003, the highest percentages for urban and rural areas were in the provinces Papua (52,3%), West Nusa Tenggara (46,2%) and East Nusa Tenggara (50,5%) [4]. In the most densely populated provinces such as DKI Jakarta and Bali, the percentage reached more than 30% (in urban areas only). During times of economic crisis, less people can afford to buy a house and in fact a substantial part of the community cannot afford to pay housing credit; others have even been forced to sell their houses in order to obtain cash money. The lack of affordable housing has partly led to the development of slum settlements,

which in Indonesia amounted to 4 million ha in 1996. These facts show that Indonesian regional governments face difficulties in predicting the increasing or decreasing population numbers and providing an adequate amount of housing facilities, especially in dense urban areas. This condition is worsened by the reluctance of the regional governments to recognize indigenous kampungs, which have been inhabited for many generations, as a formal administrative part of the city. Kampung inhabitants are commonly people whose income sources is in the informal sector: they possess no certifications for land ownership. It is difficult for these people to obtain such certificates since they lack of proper identification, formal documents and financial capital, which has forced them to build illegitimate settlements.

Studies indicate that housing conditions have a significant influence on the health of the occupants [5, 6, 7, 8, 9]. Furthermore, the effect of high levels of household air pollution on health is much higher among those who spend more time indoors than outdoors. Thus, mothers and young children who are confined indoors after childbirth in dwellings with high levels of household air pollution are a particularly vulnerable group [10]. The importance of view for engendering a sense of wellbeing and satisfaction with the housing environment, as well as for being a therapeutic tool in aiding recovery from sickness, cannot be over-emphasized. By contrast, a gloomy outside environment tends to make people feel shut in or oppressed. Aesthetic satisfaction in the home also will benefit mental health and wellbeing although placing a "health" value on aesthetic considerations that are indeterminate and dependent upon social, cultural, economic and individual factors would be difficult. [11]

To know the percentage of healthy home, the usual survey is done organized by a sanitarian puskesmas or an environmental health worker regencies / municipality under the supervision of District Health Office Kabupaten Ngawi. Sampling in conducting data collection takes a long time because the surveyor conducts a large number of surveys. A healthy home assessment should use an appropriate calculation system guideline from the Ministry of Health, but so far, the assessment of healthy homes conducted by sanitarian sanitation officers only based on PHBS (Life Behavior Clean and healthy). The assessment aspect based on the Ministry of Health consists of 3 the main categories are categories of house components, sanitation facilities and householder behavior with some criteria.

Based on the above problems, it is proposed research with the title "Information System to measure Healthy Home". Which method used is a mathematical method that conforms to the technical guidance of the assessment healthy homes, by utilizing the weight of each category obtained based on the number of categories used, the categories are poured in questions in accordance with the addition of criteria.

2. Method and Material

The development of computer-based information systems means a revolution to information handling in the construction process. Among the prerequisites of a computer integrated construction process is that:

- information must be structured into computer-based models in order to enable computer-based analyses of the products and processes that are developed,
- the computer must be able to handle information of other objects than buildings, e.g. the user organization, the site, the construction process, and the facility management process,
- information must be standardized in order to be consistent throughout the processes,
- information must be computer based already in the initial processes,
- it must be possible to use the computer as a design tool [12].

Everyone has the right to live a prosperous and spiritual life, to live and to gain an environment living a good and healthy life, as referred to in Article 28 paragraph (1) of the Constitution State of the Republic of Indonesia Year 1945 [13]. Therefore, the state ensures the fulfillment of the needs of citizens the country of decent and affordable shelter in order to build Indonesian people wholly, self-reliant, independent, and productive. The right to residence is a mandate contained in the Constitution of the State Republic of Indonesia Year 1945 and clearly stated as a human right in the Law Number 39 Year 1999 on Human Rights [14].

Healthy home already described in Regulation of the minister of health of the republic of Indonesia number 39 year 2016 about guidelines for the program of healthy Indonesian programs with family approach. In this regulation mention that family Health Profile (hereinafter referred to as Prokesga), in the form of family folder, which is a means to record (save) family data and individual data of family members [15].

Healthy homes are residential buildings that meet health requirements, that is, houses that have:

- healthy latrines,
- clean water facilities,
- garbage dump,
- waste water disposal facilities,
- Good home ventilation,
- appropriate dwelling density

- floor of a house not made of soil [16]

3. Result

This information system method used in the determination calculation Healthy homes are a mathematical method based on home assessment technical guidelines health issued by the Ministry of Health of the Republic of Indonesia in 2002. Use of methods this by utilizing the weight of each criterion that is poured into the form question and grouped into several categories. From the weight obtained each criterion will then be multiplied by the category weight. Multiplication result is summed if the total amount is more than 80% then the house otherwise eligible. From each weight of the criteria, a value has been determined minimum limit. This minimum value limit will affect whether the house is otherwise eligible or not. As for the steps done in assessment in Puskesmas Kendal Kabupaten Ngawi is as follows:

1. Determining the data needed. Such as officer data, location data, and data house / KK.
2. Determine the categories and aspects used for the assessment. In this case there are 3 categories, namely house components, sanitation facilities and householder behavior.
3. Define multiplier weights for each category. Weighting of categories components of houses, sanitation facilities, and occupational behavior categories are interpreted against:
 - Component of The House - 12%
 - Sanitation Facilities - 14%
 - Behaviors of The Residents in Healthy Living - 23%
 - Behaviors in Processing Household Waste - 23%
 - Drainage - 18%
 - Physical Path - 10%
4. In the assessment of a healthy house the percentage of health care and heredity ignored.
5. Compare to the threshold, when the total score of the data collection obtained greater or equal to (\geq) from the threshold, and a house said to not qualify if the total score of data collection obtained smaller ($<$) threshold.

3.1 Definition Phase and Needs Analysis

The analysis done before building this system is with collection of data on healthy homes. The data obtained is the data in the form criteria determination to be used in the process of calculating the feasibility of the house healthy. The analysis includes input, process and output analysis.

3.2 System and Software Design Phase

At this design stage is carried out the design process which can then be used for system construction. In Figure 1 describes the prototype of a healthy home simulation, there are two users that can interact with the system, ie admin and citizens. Admin in question is the health service officer of Ngawi District, where admin can insert weight of healthy house assessment, entering citizen data and entering data of house component, then system give result of healthy house assessment. Furthermore, other types of users are residents of Ngawi District where residents can see the house inhabited whether already included in the criteria assessment of healthy homes or not.

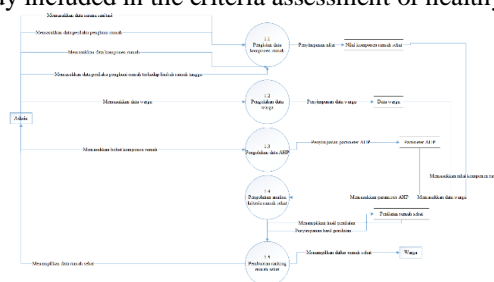


Figure 1. DFD Level 1 Design Healthy Home

3.3 Implementation and Review Phase

Figure 2 illustrates the view of newly added data in the system, which has Jarsongo data as the village name, then Jarsongo street number 2 as the village address, then the number of houses is still zero (0) since no householder data has been stored, and the can be edited to write down the distinctive features of the village.

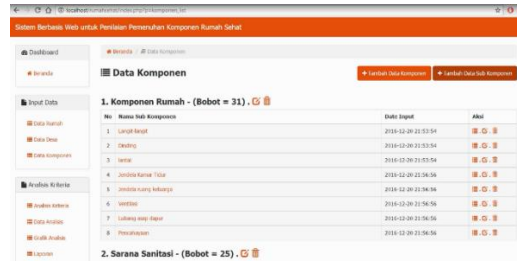


Figure 2 Component Healthy Home

In Figure 3 the report shows the number of healthy houses in all villages so that the admin can see the healthy number and unhealthy house of rural people in Ngawi District



Figure 3 Healthy Home Ranking View

4. Discussion

Based on the results of research and discussion that have been described previously then the following conclusions can be drawn:

- This research has designed a system that can help provide advice, input or consideration in decision making to determine eligibility healthy home.
- Parameter measurement of healthy home in this research developed parameter which have been done by Ministry of health department, which use three parameters namely the components of the house; sanitation facilities; the behavior of the residents in healthy living. This study adds three parameters the behavior in processing household waste; drainage; and physical path. These additional parameters have been approved by the head of the health office in Kabupaten Ngawi.

Reference

- [1] T. Koskela and K. Vninen-Vainio-Mattila. Evolution towards smart home environments: empirical evaluation of three user interfaces. *Personal and Ubiquitous Computing*, vol. 8, pp. 234–240, {2004}.
- [2] OECD. Overview of OECD economic surveys: Indonesia [Online] Available from: <http://www.oecd.org/eco/46266398.pdf> [Accessed 3 Apr 2018]. (2010)
- [3] Baker, J.L. (ed.). *Climate change, disaster risk, and the urban poor: Cities building resilience for a changing world*. Washington D.C.: The World Bank. (2012)
- [4] Belcher, Brian. *Bamboo & Rattan Production-to-Consumption Systems: A Framework for Assessing Development Options*. INBAR Working Paper No. 4. India: INBAR. (1995)
- [5] Armstrong, J. R., & Campbell, H. Indoor air pollution exposure and lower respiratory infections in young Gambian children. *International Journal of Epidemiology*, 20, 424–429. (1991).
- [6] Bruce, N., Pope, D., Rehfuess, E., Balakrishnan, K., Adair-Rohani, H., & Dora, C. WHO indoor air quality guidelines on household fuel combustion: Strategy implications of new evidence on interventions and exposure risk functions. *Atmospheric Environment*. doi:10.1016-j.atmosenv.2014.08.064. (2014).
- [7] Bruce, N., Perez-Padilla, R., & Albalak, R. Indoor air pollution in developing countries: a major environmental and public health challenge. *Bulletin of the World Health Organization*, 78, 1078–1092. (2000).
- [8] Krieger, J., & Higgins, D. Housing and health: Time again for public health. *American Journal of Public Health*, 92, 758–768. (2002).
- [9] Lim, S. S., Vos, T., Flaxman, A. D., Danaei, G., Shibuya, K., Adair-Rohani, H., ... Ezzati, M. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: A systematic analysis for the Global Burden of Disease Study 2010. *The Lancet*, 380, 2224–2260. (2012).

- [10] Smith, K. R., McCracken, J. P., Weber, M. W., Hubbard, A., Jenny, A., Thompson, L. M., ... Bruce, N. Effect of reduction in household air pollution on childhood pneumonia in Guatemala (RESPIRE): A randomised controlled trial. *The Lancet*, 378, 1717–1726. (2011).
- [11] Larasati, D. Sustainable Housing in Indonesia, *Journal of Global Community Based Housing*, Online, available at <http://www.cbhjournal.com>, August. (2003)
- [12] Eastman C. M. and Fereshetian N. Information models for use in product design: a comparison. *Computer-Aided Design* Vol. 26, No 7, pp 551-572, July (1994).
- [13] Republic of Indonesia. Undang-undang Dasar of the Republic of Indonesia. Jakarta, Indonesia. (1945).
- [14] Republic of Indonesia. Undang-undang for human right. Jakarta, Indonesia. (1999)
- [15] Republic of Indonesia. Regulation of the minister of health of the republic of Indonesia number 39 year 2016. Guidelines for the program of healthy Indonesian programs with family approach. Jakarta, Indonesia. (2016)
- [16] The Ministry of Environment, Republic of Indonesia. From Crisis to Sustainability: Paving the Way for Sustainable Development in Indonesia. Overview of the Implementation of Agenda 21. Jakarta: Ministry of Environment, Republic of Indonesia. p.10, May. (2002).