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HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : JURNAL ILMIAH

Judul karya ilmiah (artikel) : Technical Analysis And Values Of Fathonah, Amanah, Shidiq And Tabligh (FAST) In Production Factors Management
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• Kecukupan dan Kemutakhiran Data & Metodologi	Mutakhir, relevan dan meruakan isu aktual					
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Indikasi plagiasi	Tidak ada					
• Kesesuaian bidang ilmu	Sesuai dengan perkembangan ilmu ekonomi khususnya ekonomi Syariah dan memperluas referensi bidang ilmu					

Semarang, 2 Juli 2021
Reviewer 1



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• Kecukupan dan Kemutakhiran Data & Metodologi	Kecukupan dan kemutakhiran data kurang uptodate, banyak menggunakan sumber lama dan tidak bereputasi internasional, metodologi sesuai dengan permasalahan dan tepat					
• Kelengkapan unsur dan kualitas penerbit	Kelengkapan unsur dan kualitas penerbit <i>Discontinued in Scopus as of 2020</i> sehingga dikategorikan jurnal internasional saja					
Indikasi plagiasi	Tidak terndikasi plagiasi					
• Kesesuaian bidang ilmu	Kajian kurang sesuai dengan bidang ilmu pengusul (Ekonomi Makro)					

Semarang, September 2021
Reviewer



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Abstract

This study aims to technically analyze the production factors that affect the productivity of sweet potato farming in Kuningan Regency, and analyze farmer's behavior, namely how to apply the values of fathonah, amanah, shidiq and tabligh (FAST) based on Islamic values in managing production factors and their effects on the productivity of sweet potato farming. The empirical model used based on the Augmented Solow Model incorporates Human capital elements in the endogenous production function model. To interact between the values of FAST with variables of land, capital and labor so that it will be seen how increasing farm productivity will increase with the presence of variables that can strengthen these interactions. Therefore, the authors include the values of FAST into each production factor (land, capital and labor). The results revealed that the factors of land production, capital and labor had a positive and significant effect on the productivity of sweet potato farming, while the number of family dependents had a positive but not significant effect on the productivity of sweet potato farming in Kuningan Regency. The values of FAST have a positive and significant effect on farm productivity

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through increasing land management, capital and labor capacity, however trustworthy values have a positive but not significant effect on farm productivity through increasing labor management capacity.
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Author keywords

Amanah; Augmented Solow Model; Farming Productivity; Fathonah; Production Factor; Shidiq; Tabligh

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Identifying AEAP ALAP Sequences For Optimization Using Dependency Structures

M.Sangeetha, Dr.S.Malathi

Software Testing is a process of analysis whether a system or a product complies with needs of customer requirements. It is mainly performed by testing team using different tools and techniques and the main target is to identify different behavior in the software project and to make sure quality. Generally testing is not done completely, instead it focuses on different test stages in testing like Unit, Integration, System, User Acceptance etc., and before launching it to the real world testing confirms the performance of the product. Testing also prevents product failure or wastage of cost. Access the quality of the final product delivered to the customer is the main aim of testing. Different phases of Testing life cycle focuses on – Test plan, Test design, Test execution, Defect reporting and tracking it to closure etc., test designing is writing of test cases based on requirements are the main blocks of testing. Very crucial in this testing life cycle is writing effective test cases in minimum time period. Criticality and risks is a key task of tester to sequence the test cases based on the priority of test case generation. Proposed methodology is to improve the detection of fault at the earlier phase like planning. This methodology provides the sequential order in as per the dependency of modules. In this paper we mainly identifying the modules along with cyclic blocks to be tested in sequence during the planning phase and prioritize this with OATS techniques and dependency structure.

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A Hybrid Ifcsa Approach For Optimal Location And Capacity Of Upfc To Improve Power System Dynamic Stability

T. Jagan Mohan Raju, .G. Tulasiram, Soumya K

In this manuscript, the hybrid technique based on optimal location and the capacity of UPFC to improve the dynamic stability of the power system are proposed. The proposed hybrid technique is the joint execution of both the Improved Fruitfly Algorithm (IFA) and Crow Search Algorithm (CSA) and hence it is said to be as IFCSA. Here, the searching behavior of the fruit flies is enhanced by the crossover and mutation technique and hence it is termed as improved FA (IFA) technique. The novelty of the proposed hybrid technique is exemplified in the improved searching ability and reduced complexity. In this regard, the generator fault affects the dynamic stability of the system constraints such as voltage, power loss, real and reactive power. IFA technique optimizes the maximum power loss line as the

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the study. The results indicate that there was a strong positive correlation between Tangibility and Assurance (.890), Empathy and Assurance (.866) and also between Empathy and Responsiveness (.822). This study redirects that several factors of service quality act as major antecedents to create satisfied patients and reinforce positive behavioral perceptions among them. Thus, Hospitals should allocate their resources, rationally regarding the attributes of service quality based on their effective perception by the patients. These attributes should also contribute to patients' satisfaction and hence increase overall patient satisfaction.

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Implementation Of Smart Home By Using Packet Tracer

G.L.P Ashok, P. Saleem Akram, M. Sai Neelima, J. Nagasaikumar, A.Vamshi

The technology has been growing from day to day in human life. The necessity for the development of technology is to lead human life comfortably. The basic need of human to lead his/her life comfortably is a home. A home with updated latest technology which means a smart home. This paper gives the basic idea use cisco packet tracer to implement smart home. One is needed to create a smart home when electronic devices are switched on and off. Smart home development is achieved by simulation via testing system, network setup and wireless home gateway computer network equipment required by a smart home network cisco packet tracer using Internet Thing (IoT)/IoE command. The software chosen for the simulations is Cisco Packet Tracer, the tool's main strength is to offer a variety of network components that represent a real network, and then interconnect and configure devices to create a network. Cisco implemented (IoT) functionalities in the latest version of the platform, and now it is possible to add all the smart devices, sensors, actuators and also devices, which simulate microcontrollers like Arduino or Raspberry Pi to the network. All IoT devices can be run on generic programs or modified by Java, Python or Blockly programming them. This makes Cisco Packet Tracer a perfect method to construct functional simulations for IoT.

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Self-Adjoint Operator With Triangular Factorization In Hilbert Space

Ahmed Yahya M.H

In this paper we examine and apply the issue of triangular factorization of positive self-adjoint operators in Hilbert space; we demonstrate that expansive classes of operators can be factorized.

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Technical Analysis And Values Of Fathonah, Amanah, Shidiq And Tabligh (FAST) In Production Factors Management

Dewi Fatmasari, Waridin Waridin, Akhmad Syakir Kurnia

This study aims to technically analyze the production factors that affect the productivity of sweet potato farming in Kuningan Regency, and analyze farmer's behavior, namely how to apply the values of fathonah, amanah, shidiq and tabligh (FAST) based on Islamic values in managing production factors and their effects on the productivity of sweet potato farming. The empirical model used based on the Augmented Solow Model incorporates Human capital elements in the endogenous

production function model. To interact between the values of FAST with variables of land, capital and labor so that it will be seen how increasing farm productivity will increase with the presence of variables that can strengthen these interactions. Therefore, the authors include the values of FAST into each production factor (land, capital and labor). The results revealed that the factors of land production, capital and labor had a positive and significant effect on the productivity of sweet potato farming, while the number of family dependents had a positive but not significant effect on the productivity of sweet potato farming in Kuningan Regency. The values of FAST have a positive and significant effect on farm productivity through increasing land management, capital and labor capacity, however trustworthy values have a positive but not significant effect on farm productivity through increasing labor management capacity.

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Analysis Of Research Culture And Scientific Production In A National University

Ingrid Mendivel Landeo, Irma Milagros Carhuancho Mendoza, Fernando Alexis Nolasco Labajos, David Flores Zafra, Carlos Oswaldo Ventura Orbegoso

The research culture is a fundamental pillar for scientific production, because it allows us to train future professionals contemplating the techniques, methods and the process of research to prepare short documents: such as essays, monographs, and then deepen the knowledge by performing the thesis and scientific articles, in order to contribute to science with new knowledge. In the reality studied, it was evidenced that students lack investigative competences. The general and specialty training courses do not develop such capacities, but exclusively to theoretical and practical knowledge linked to professional training. Teachers do not consider research as a profitable activity. However, the educational community is acting proactively for the creation of new research teams with a disruptive presence, where researchers and teachers share their knowledge through the practical teaching of the process of scientific investigation. The university understudy, to date, has several projects financed by CONCYTEC, FINCyT, World Bank, SENCICO, the same that not only contribute to science but the improvement of the quality of life of people with innovative jobs. Although the results are encouraging, the scientific production ratio per research professor turns out to be almost two publications, while if it is related to the student population of the 9th and 10th cycle, the unit is not reached. Consequently, through these changes in the attitude of a tiny group, the student population is encouraged to be part of the new research culture through scientific input for the benefit of the population.

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Impact Of The Dispersants On The Marine Environment

Dimitar Dimitrakiev, Yuriy Dachev, Dobrin Milev

Use of oil spill dispersants is one of the possible oil spill response techniques that remove floating oil. Dispersants are an effective way of minimizing the overall ecological and socio-economic damage, by preventing oil from reaching coastal habitats and shorelines and meanwhile enhancing the natural biodegradation processes. Their use accelerates the rate and extent of natural dispersion and dilution of oil caused by wave action. The dispersants surface active agents transform by using the energy of the waves the most of the spilled oil into droplets. They are pushed into the upper column by wave action and kept there by turbulence. These oil droplets are much more available to naturally-occurring hydrocarbon-degrading microorganisms compared to floating or stranded oil. In comparison with other

Self-Adjoint Operator With Triangular Factorization In Hilbert Space

Ahmed Yahya M.H

Abstract: In this paper we examine and apply the issue of triangular factorization of positive self-adjoint operators in Hilbert space; we demonstrate that expansive classes of operators can be factorized.

Keywords : Triangular operators, operators with difference kernels, operator identity, homogeneous kernels.

1. INTRODUCTION

In the Hilbert space $L_m^2(a, a + \epsilon_2)$ we define the orthogonal projectors

$P_{(x+\epsilon)}f = f(x)$, $a \leq x < (x + \epsilon)$ and $P_{(x-\epsilon_1)}f = 0$, $(x - \epsilon_1) < x \leq a + \epsilon_2$, where $f(x) \in L_m^2(a, a + \epsilon_2)$.

Definition 1.1. A bounded operator S_- on $L_m^2(a, a + \epsilon_2)$ is called lower triangular if for every $(x + \epsilon)$ the relations

$$S_- Q_{(x+\epsilon)} = Q_{(x+\epsilon)} S_- Q_{(x+\epsilon)} \quad (1.1)$$

are true, where $Q_{(x+\epsilon)} = I - P_{(x+\epsilon)}$.

Definition 1.2. A bounded operator S_+ on $L_m^2(a, a + \epsilon_2)$ is called upper triangular if for every $(x - \epsilon_1)$ the relations

$$S_+ P_{(x-\epsilon_1)} = P_{(x-\epsilon_1)} S_+ P_{(x-\epsilon_1)} \quad (1.2)$$

are true.

Definition 1.3. A bounded, positive and invertible operator S on $L_m^2(a, a + \epsilon_2)$ is said to admit the right triangular factorization if it can be represented in the form

$$S = S_+^2 \quad (1.3)$$

where S_+ and S_+^{-1} are upper triangular, bounded self-adjoint operators.

Definition 1.4. A bounded, positive and invertible operator S on $L_m^2(a, a + \epsilon_2)$ is said to admit the left triangular factorization if it can be represented in the form

$$S = S_-^2 \quad (1.4)$$

where S_- and S_-^{-1} are lower triangular, bounded self-adjoint operators.

1. Gohberg and M.G. Krein [4] studied the problem of factorization under the assumption

$$S_-^{-2} - I \in \gamma_\infty \quad (1.5)$$

where γ_∞ is the set of compact operators. The operators S_- and S_+ were assumed to have the form $\sqrt{S} = I + X_+$, $\sqrt{S} = I + X_-$; X_+ , $X_- \in \gamma_\infty$. The factorization method plays an important role in a number of analysis problems.

The factorizing operator $V = S_-^{-1}$ is constructed in an explicit form, also he consider the class of positive operators S which satisfy the operator identity (See [1,2,3,5,6,8,9,11]).

2. TRIANGULAR FACTORIZATION WITH SELF-ADJOINT OPERATOR

Let S_+^2 be a linear, bounded, self-adjoint and invertible operator S^* on $L_m^2(a, a + \epsilon_2)$. We introduce the notation

$$[S_+^2]_{(x+\epsilon)} = P_{(x+\epsilon)} S_+^2 P_{(x+\epsilon)}, \quad (f, g)_{(x+\epsilon)} = \int_a^{(x+\epsilon)} g^*(x) f(x) dx$$

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• TRIANGULAR FACTORIZATION WITH SELF-ADJOINT OPERATOR

(2.1)

where $f(x), g(x) \in L_m^2(a, a + \epsilon_2)$.

We show the following theorem [11].

Theorem 2.1 Let the bounded and invertible operator S_+^2 on $L_m^2(a, a + \epsilon_2)$ be positive. For the self-adjoint operator S_+^2 to admit the left triangular factorization it is necessary and sufficient that the following assertions are true.

1. There exists an $m \times m$ matrix function $F_0(x)$ such that

$$Tr \int_a^{a+\epsilon_2} |F_0^*(x)|^2 dx < \infty, \quad (2.2)$$

that the $m \times m$ matrix function

$$M(x + \epsilon) = (F_0^*(x), [S^*]_{(x+\epsilon)}^{-1} F_0^*(x))_{(x+\epsilon)} \quad (2.3)$$

is absolutely continuous, and almost everywhere

$$\det M(x + \epsilon) \neq 0. \quad (2.4)$$

2. THE VECTOR FUNCTIONS

$$\int_a^x v^*(x, t) f(t) dt \quad (2.5)$$

are absolutely continuous. Here $f(x) \in L_m^2(a, a + \epsilon_2)$ and

$$v((x + \epsilon), t) = [S^*]_{(x+\epsilon)}^{-1} P_{(x+\epsilon)} F_0^*(x), \quad (2.6)$$

(In (2.3) the self -adjoint operator $[S^*]_{(x+\epsilon)}^{-1}$ transforms the matrix column of the original into the corresponding column of the image.)

3. THE OPERATOR

$$V^* f = [R^*(x)]^{-1} \frac{d}{dx} \int_0^x v^*(x, t) f(t) dt \quad (2.7)$$

is bounded, invertible and lower triangular with its inverse $[V^*]^{-1}$. Here $R^*(x)$ is an $m \times m$ matrix function such that

$$[R^*(x)]^2 = \dot{M}(x). \quad (2.8)$$

Proof. Necessity. We suppose that the self-adjoint operator S^* admits the left triangular factorization (1.4). Let $F_0^*(x) \in L_m^2(a, a + \epsilon_2)$ be a fixed $m \times m$ matrix function satisfying relation (2.2). We introduce the $m \times m$ matrix function

$$R^*(x) = V^* F_0^*(x), \quad (2.9)$$

where $V^* = [S^*]^{-2}$. We can choose $F_0^*(x)$ in such a way that almost everywhere then equality

$$\det R^*(x) \neq 0 \quad (2.10)$$

is true.

From relations (1.4), (2.3) and (2.9) we have

$$M(x + \epsilon) = \int_a^{a+\epsilon} |R^*(x)|^2 dx. \quad (2.11)$$

Hence the function $\overset{a}{M}(x + \epsilon)$ is absolutely continuous and

$$\dot{M}(x) = [R^*(x)]^2. \quad (2.12)$$

Now we use the equality

Impact Of The Dispersants On The Marine Environment

Dimitar Dimitrakiev, Yuriy Dachev, Dobrin Milev

Abstract: Use of oil spill dispersants is one of the possible oil spill response techniques that remove floating oil. Dispersants are an effective way of minimizing the overall ecological and socio-economic damage, by preventing oil from reaching coastal habitats and shorelines and meanwhile enhancing the natural biodegradation processes. Their use accelerates the rate and extent of natural dispersion and dilution of oil caused by wave action. The dispersants surface active agents transform by using the energy of the waves the most of the spilled oil into droplets. They are pushed into the upper column by wave action and kept there by turbulence. These oil droplets are much more available to naturally-occurring hydrocarbon-degrading microorganisms compared to floating or stranded oil. In comparison with other oil spill techniques it has some limitations related to oil viscosity and the time of applying after the oil spill.

Index Terms: Dispersant, Oil spill, Response technique, Marine environment, Ecological process, Surfactant, Environmental protection.

1. INTRODUCTION

The chemical combating of oil spills began in 1960's at the same time as oil spill response began. Although they can be highly effective and sometimes the only way of combatting oil spill, their practical use is limited in some countries due to environmental concerns. Over the years there has been a certain controversy related to the use of dispersants. It is therefore important to understand the conditions where their use will be most effective. It is important to be aware of the facts – as opposed to the myths-related to the use of dispersants. In the beginning the dispersants were first used on several high profile tanker spills. At that time they were not very effective, and turned out to be more toxic than the oil. Dispersants used today have lower toxicity and have been proved to be effective in a number of actual incidents. Dispersants break up the oil in small droplets reducing oil concentrations and enabling faster natural biodegradation. They contain surface action chemical agents and are less toxic than the oil but the toxicity must be considered. At the end they can be only used in salt water areas with a good water exchange in order to reduce the impact on the marine environment. [1]

2 PERFORMANCE OF THE DISPERSANTS

2.1 Composition of the dispersants

In general dispersants consist of two components:

- A blend of active chemicals which consists of emulsifiers and wetting agents;
- A solvent system which acts as a carrier but does not take an active part.

The active chemicals are called surfactants – surface active agents.

2.2 Effectiveness of the dispersants

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The active chemicals in the dispersant prefer to sit at the interface between the oil and the water. This means that the surface tension between the oil and water is reduced and the oil breaks up into small droplets and emulsify with the water. The speed of the emulsification depends basically on the wave action. When the oil is in small droplets the dilution and natural bio-degradation accelerates. It means the oil concentrations reduce more rapidly. When the oil droplets are formed they appear as a light brown or white cloud in the water. If the cloud is black it is because the droplets are quite large and are liable to resurface.

2.3 Impact of the dispersants

The types of dispersants used today are not as harmful to the environment – aquaculture, marine culture, fish etc. as their predecessors. However, dispersants cause the oil to leave the sea surface and instead disperse in water column where the oil becomes more available to the marine environment. As other combatting techniques are available – especially mechanical, many national environmental protection agencies forbid the use of dispersants or, more frequently, impose strict conditions on their use.

2.4 Apply of the dispersants

Dispersants should be applied by spraying as soon as possible after the oil spill. They are not effective against all oil spills. The viscosity must not exceed 5 000 centistokes. If the water is calm the oil is often seen resurfacing as the energy in the water is not enough to maintain droplets below the water surface. When a dispersant has been applied it is normally not possible to recover the oil mechanically as the oil often transforms into tar balls. Also, dispersed treated oil does not adhere to some types of oleophilic skimmers. [2]

3 TYPES OF DISPERSANTS

In the UK, where the use of dispersants spraying has been adopted as the primary at-sea response to oil spills in UK waters, the British National Environmental Technology Centre of AEA Technology introduced the classification of dispersants which is used worldwide based on the dispersant's form application.

The three principal types of dispersants are:

- Type 1: Neat, non-concentrated;
- Type 2: Diluted, concentrated;