

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : PROSIDING

Judul Karya Ilmiah : Design Log Management System of Computer Network Devices Infrastructures Based on ELK Stack

Jumlah Penulis : 3 Orang (**Adian F. Rochim**, Mukhlis A. Aziz, Adnan Fauzi)

Status Pengusul : Penulis ke-1

Identitas Prosiding :

- a. Judul Prosiding : 2019 International Conference on Electrical Engineering and Computer Science (ICECOS)
- b. ISBN/ISSN : 978-1-7281-4714-7
- c. Thn Terbit, Tempat Pelaks. : 2019, Batam Island, Indonesia
- d. Penerbit/Organiser : IEEE Xplore Digital Library
- e. Alamat Repository/Web : <https://ieeexplore.ieee.org/document/8984494>
- f. Alamat Artikel : <https://doc-pak.undip.ac.id/1665/1/rochim2019.pdf>
- f. Terindeks di (jika ada) : Scopus

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 (beri ✓ pada kategori yang tepat) ☐ Prosiding Forum Ilmiah Nasional

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Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi prosiding (10%)	2,10	2,30	2,20
b. Ruang lingkup dan kedalaman pembahasan (30%)	7,05	7,35	7,20
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	7,15	7,20	7,18
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	7,20	7,25	7,23
Total = (100%)	23,50	24,10	23,80
Nilai Pengusul = (60% x 23,80) = 14,28			

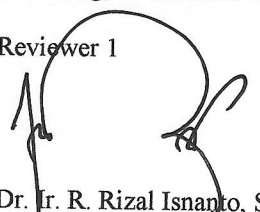
Reviewer 2



Dr. Iwan Setiawan, S.T., M.T.
 NIP. 197309262000121001
 Unit : Dept. Teknik Elektro FT UNDIP

Semarang, 10 Januari 2021

Reviewer 1



Dr. Ir. R. Rizal Isnanto, S.T., M.M., M.T., IPM
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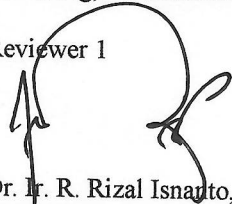
Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional 25	Nasional 	
a. Kelengkapan unsur isi prosiding (10%)	2,50		2,10
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Catatan Penilaian Paper oleh Reviewer :

- Kesesuaian dan kelengkapan unsur isi paper:**
Prosiding ICECOS memiliki kelengkapan yang cukup. Makalah yang dipublikasikan dalam conference ini sesuai dengan cakupan topik dari International Conference ICECOS
- Ruang lingkup dan kedalaman pembahasan:**
Topik dari makalah adalah "Design Log Management System of Computer Network Devices Infrastructures Based on ELK Stack". Pembahasan sudah dilakukan secara mendalam, dilengkapi dengan gambar, grafik, dan tabel.
- Kecukupan dan kemutakhiran data/informasi dan metodologi:**
Sistem manajemen log yang digunakan sebagai objek penelitian berbasis ELK Stack sudah mencukupi untuk digunakan dalam pengambilan kesimpulan penelitian pada kasus infrastruktur perangkat jaringan komputer. Kesimpulan yang diambil sudah sesuai dengan metodologi yang dipakai.
- Kelengkapan unsur dan kualitas terbitan:**
Terbitan dari Prosiding ICECOS sudah cukup lengkap dalam aspek pemenuhan persyaratan sebagai prosiding seminar internasional, serta kualitas terbitan online maupun cetaknya sudah cukup bagus.

Semarang, 9 Januari 2021

Reviewer 1


Dr. Ir. R. Rizal Isnanto, S.T., M.M., M.T., IPM
NIP. 197007272000121001
Unit : Dept. Teknik Komputer FT UNDIP

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	Internasional 25	Nasional 	
a. Kelengkapan unsur isi prosiding (10%)	2,50		2,30
b. Ruang lingkup dan kedalaman pembahasan (30%)	7,50		7,35
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	7,50		7,20
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	7,50		7,25
Total = (100%)	25,00		24,10
Nilai Pengusul = (60% x 24,10) = 14,46			

Catatan Penilaian Paper oleh Reviewer :

1. Kesesuaian dan kelengkapan unsur isi paper:

Kelengkapan dan kesesuaian prosiding ICECoS lengkap sesuai dengan standar IEEE.

2. Ruang lingkup dan kedalaman pembahasan:

Ruang lingkup makalah mengenai desain dan implementasi perekaman kegiatan digital pada infrastruktur jaringan untuk mendeteksi adanya aktivitas-aktivitas pada jaringan komputer. Pembahasan dari desain sampai implementasi detail, namun komparasi belum dilakukan. Belum ada usulan metode baru untuk *Logging Network Activities*.

3. Kecukupan dan kemutakhiran data/informasi dan metodologi:

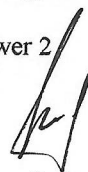
Daftar pustaka kurang mutakhir, namun sudah cukup untuk membuat/mendesain dan mengimplementasikan ide dari peneliti. Metode masih menggunakan metode lama, namun hasil yg didapatkan berupa aplikasi cukup berkontribusi dalam kaitan peta riset di *network automation*.

4. Kelengkapan unsur dan kualitas terbitan:

Kelengkapan dan kualitas terbitan prosiding baik sesuai standar yg ketat dari IEEEExplore.

Semarang, 10 Januari 2021

Reviewer 2



Dr. Iwan Setiawan, S.T., M.T.

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ICECOS 2019 - 3rd International Conference on Electrical Engineering and Computer Science, Proceeding
October 2019, Article number 8984494, Pages 338-342
3rd International Conference on Electrical Engineering and Computer Science, ICECOS 2019; Batam; Indonesia; 2 October 2019 through 3 October 2019; Category number CFP19L95-ART; Code 157451

Design Log Management System of Computer Network Devices Infrastructures Based on ELK Stack (Conference Paper)

Rochim, A.F. ✉, Aziz, M.A. ✉, Fauzi, A. ✉

Diponegoro University, Department of Computer Engineering, Semarang, 50275, Indonesia

Abstract

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Device monitoring is an important thing to manage networks. Information-related network state or condition can be gathered through the device monitoring for administrators to take decisions regarding occurred events. Logs can be useful information to monitor network devices. Network administrator of Diponegoro University needs a centralized the logs, so that can receive, manage, and analyze logs. This research identifies functional requirements of the log management system. DSR Method was used to design topology and software of the log management system. The next step is implementation of the topology, software, and application. The last step is testing the system and log management application. The results show that collecting centralized logs and processing these logs into information in the form of dashboards using ELK Stack application successfully implemented. The dashboard resulted by ELK Stack Application will be implemented on the web application using PHP programming language and Code Igniter framework. The test results show that system can receive logs and group the log according to the device location and the severity level of the log. © 2019 IEEE.

SciVal Topic Prominence ⓘ

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Author keywords

Codeigniter Dashboard ELK Stack log Monitoring PHP

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(2017) *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*

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Funding details

Funding sponsor	Funding number	Acronym
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WELCOME MESSAGE FROM GENERAL CHAIR

On behalf of the organizing committee, I am delighted to welcome you to the 3rd International Conference on Electrical Engineering, Electronics and Computer Science (ICECOS) 2019 during 2 - 3 October 2019 at Batam, Indonesia. ICECOS is the annual International conference organized by Universitas Sriwijaya (Unsri).

This conference will provide opportunities to exchange ideas, knowledge, and development of the latest research among the scientists, engineers, and researchers, especially in Electrical Engineering, Electronics and Computer Science. ICECOS 2019 received 126 submissions from various countries and affiliations that were peer reviewed.

We are very honored to have Prof. Dr. Masato Miyoshi (Kanazawa University, Japan), Prof. Dr. Zainal Salam (Universiti Tekbologi Malaysia, Malaysia), and Dr. Wahyu Caesarendra (Universiti Brunei Darussalam, Brunei Darussalam) as keynote speakers.

The conference committee expresses its gratitude towards all the author, reviewers, and participants for the great contribution to ensure the success of this event. Finally, I sincerely thank all the members of the organizing committee who have worked hard to prepare the conference.

General Chair

Muhammad Abu Bakar Sidik, Ph.D.

KEYNOTE SPEAKERS



Prof. Dr. Masato Miyoshi

Kanazawa University, Japan

Masato Miyoshi received M.E. and D.E from Doshisha University, Kyoto in 1983 and 1991, respectively. From 1983 to 2009, he engaged in research on signal processing theory and its application to acoustic technologies as a research staff member of Nippon Telegraph and Telephone Corporation. Since 2009, he has been with Graduate School of Natural Science and Technology, Kanazawa University. Prof. Miyoshi was honored to receive the 1988 IEEE Senior Award, the 1989 ASJ Awaya-Kiyoshi Prize Young Researcher Award, the 1990 and 2006 ASJ Sato Prize Paper Awards, the 2005 IEICE Best Paper Award, the 2009 ASJ Technical Development Award, and the 2017 Tsushinbunka Association Maejima-Hisoka Award, respectively. He is a senior member of IEEE.



Prof. Dr. Zainal Salam

Universiti Teknologi Malaysia, Malaysia

Prof. Dr. Zainal Salam obtained his B.Sc (Electronics Engineering), M.E.E (Electrical Engineering). and Ph.D (Power Electronics), from the California State University (Chico, California), Universiti Teknologi Malaysia (UTM, Kuala Lumpur) and University of Birmingham (UK), in 1985, 1989 and 1997, respectively. He has been a lecturer for 28 years and is now the Professor in Power Electronics and Renewable Energy at the School of Electrical Engineering ,Faculty of Engineering UTM. He is the founder, and currently the Director of the Inverter Quality Control Center (IQCC) UTM. This facility is responsible to test PV inverters that are to be connected to the local utility grid. Prof. Zainal has authored and co-authored over 150 papers in various technical journals and conference proceedings. Since 2011, he has been the editor of IEEE TRANSACTION ON SUSTAINABLE ENERGY, (an IEEE Power and Energy Society publication) and a member of Editorial Board for the Scientific World Journal (Hindawi Publishing Corporation). Over the past two decades, Prof. Zainal has been actively contributing as reviewers to various highly reputed journals, such as IEEE Transactions Industry Applications, Industrial Electronics, Power Electronics and numerous titles from Elsevier. He represents the country as the expert for the International Energy Agency (IEA) PV Power Systems Task 13 Working Group, which focus on the reliability and performance of PV power system. Prof. Zainal is the Vice-Chair IEEE Power Electronics, Industrial Electronics and Industry Application Joint Chapter, Malaysia Section (2011-2013), Organizing Chairman for the 5th IEEE International Power Electronics and Drives Systems Conference (2005, Kuala Lumpur) and Co-organizing Chairman for the 2nd IEEE International Power and Electronics and Energy Conference (2008, Johor Bahru). He is involved in over 30 projects and consulting works on power converters, solar energy and machine control. His main research interests include all areas of design, instrumentation and control of power electronics renewable energy systems.



Dr. Wahyu Caesarendra

Universiti Brunei Darussalam, Brunei Darussalam

Diponegoro University, Indonesia

Wahyu Caesarendra is an Assistant Professor at Faculty of Integrated Technologies, Universiti Brunei Darussalam since October 2018. He received Bachelor of Engineering degree from Diponegoro University, Indonesia in 2005. He worked in automotive and electrical company prior to join Diponegoro University as a Lecturer in 2007. He received New University for Regional Innovation (NURI) and Brain Korea 21 (BK21) scholarships for Master study in 2008 and obtained his Master of Engineering (M.Eng) degree from Pukyong National University, South Korea in 2010. In 2011, Wahyu Caesarendra was awarded of University Postgraduate Award (UPA) and International Postgraduate Tuition Award (IPTA) from University of Wollongong. He received Doctor of Philosophy (Ph.D. degree from University of Wollongong in 2015. He published more than 60 research articles in Journals and Conference proceedings. He worked as Postdoctoral Research Fellow in Rolls-Royce@NTU Corp Lab from 2017 to 2018, School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore from 2017 to 2018. He is currently also an Assistant Professor in Mechanical Engineering Department, Diponegoro University, Indonesia from 2010. His research interests include Vibration Condition Monitoring, Fault Diagnosis and Prognosis, Mechatronics and Robotics, Machine Learning and Deep Learning, Mechanical Design and 3D Printing, and Smart Manufacturing and IoT.



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Design Log Management System of Computer Network Devices Infrastructure Based on ELK Stack

Paper ID: 1570586557

Adian Fatchur Rochim (Diponegoro University, Indonesia); Mukhlis Abdul Aziz (Diponegoro University); Adnan Fauzi (Diponegoro University, Indonesia)

Abstract - Device monitoring is an important thing to manage networks. Information-related network state or condition can be gathered through the device monitoring for administrators to take decisions regarding occurred events. Logs can be useful information to monitor network devices. Network administrator of Diponegoro University needs a centralized the logs, so that can receive, manage, and analyze logs. This research identifies functional requirements of the log management system. DSR Method was used to design topology and software of the log management system. The next step is implementation of the topology, software, and application. The last step is testing the system and log management application. The results show that collecting centralized logs and processing these logs into information in the form of dashboards using ELK Stack application successfully implemented. The dashboard resulted by ELK Stack Application will be implemented on the web application using PHP programming language and Code Igniter framework. The test results show that system can receive logs and group the log according to the device location and the severity level of the log.

Keywords: *Monitoring; log; ELK Stack; PHP; Codeigniter; Dashboard*

Correlation Between Global Warming and Lightning Density in Kuala Lumpur and Johor Bharu

Paper ID: 1570543208

Noor Azlinda Ahmad (Institute of High Voltage & High Current, Universiti Teknologi Malaysia, Malaysia); Muhammad Abu Bakar Sidik (Faculty of Engineering, Universitas Sriwijaya Ogan Ilir, Indonesia); Zainuddin Nawawi (Universitas Sriwijaya, Indonesia); Muhammad Irfan Jambak (Faculty of Engineering, Universitas Sriwijaya Ogan Ilir, Malaysia)

Abstract - This paper study and investigates the characteristic and relationship between lightning occurrence and temperature due to global warming. The correlation between global warming and lightning occurrence are not much in-depth study in Malaysia. The conducted of this research have been done in Kuala Lumpur and Johor Bahru, Malaysia for a period of year 2011 until year 2016 using data provided by Malaysian Meteorological Department and TNB Research. A statistical analysis between lightning occurrence and temperature have been done to show the correlational activities. It is found that there are positive correlation between temperature and lightning density in both cities. Findings of this project is useful to utility companies and electrical consultants in Malaysia in designing, and enhancing their lightning protection system for better improvement and will benefit the public in the sense of educating and understanding the importance of environmental preservation and conservation to help reduce the impact of global warming.

Keywords: *Global warming, lightning, temperature trends*

Design Analysis of Tele-operatic Supernumerary Robotic Limb

Paper ID: 1570564722

Noer Fadzri Perdana Dinata and Wei Chih Lin (National Sun Yat-sen University, Taiwan)

Abstract - the approach of this study is to develop a teleoperatic supernumerary robotic limb for ease of use, comfortability, while maintain its reliability to assist its user. The controller was made as an Android operating system application, to control each servo motor wirelessly. Bluetooth was utilizes as the connection to the microcontroller that control the robotic actuators. It shows the signal that has been produced from the Android operating system application, can be forwarded via Bluetooth as a string value. Subsequently, the string value, that stores the command for servo motor position, can be process using a for-loop function. Therefore, the servo motor will be able to move to the desired position in a controlled manner, instead of directly move to a certain position in a maximum speed, which might implicate structural deformation on the linkage. This result displayed that by shifting the controller to tele-operatic system, could contribute for far more complex supernumerary robotic limb development, without additional weight to be loaded to the user body.

Keywords: *tele-operatic, supernumerary robotic limb, android, control system*

Smartphone and Mobile Learning to Support Experiential Learning

Paper ID: 1570544660

Mirna Ari Mulyani (Universitas Pendidikan Indonesia, Indonesia); Abdur Razzaq (Universitas Islam Negeri Raden Fatah, Indonesia); Sari Lestari Ridho (Politeknik Negeri Sriwijaya, Indonesia); Muhammad Anshari (Universiti Brunei Darussalam, Brunei Darussalam)

Abstract - Developing countries are a more prevalent beneficiary of smartphone technologies. Smartphones are not just supplementary devices for developing countries, but smart mobile devices can play an integral part in their education systems. Students use excessive of smartphone for a variety of activities rising a concern to make the smartphones as a tool in mobile learning activities. Though, the risk is that smartphone can actually be obstacles in the learning process, instead of aid. This paper attempts to explain the features and opportunities of smartphones usage for students, particularly in relation to a smartphone as experiential learning activities. Students use a smartphone as experiential learning where the process of experiencing mobile learning through smartphone may turn the positive side of fun mobile learning approach. This study uses a quantitative method for 206 respondents that own a smartphone. The findings indicate that the smartphone activities of students keen on using it for social networking, instant messaging, and game online, and entertaining activities. Smartphones are beneficial but they can also be a distraction and can be a problem to our well-being if not used responsibly. Therefore, it is important to introduce a model of fun based learning activities through experiential mobile learning to lessen the negative impacts of the smartphone's additions.

Keywords: *Experiential learning, Mobile Learning(mLearning), experiential learning, Smartphone, Fun Based Learning*

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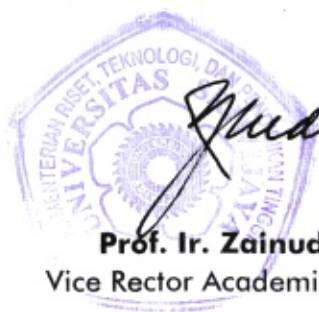
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In recognition and appreciation of your contribution as

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