WORQ Participant Selection (How to write International Quality Publication)

28-29 Oktober 2019 – Jakarta

This training is designed for academics at Indonesian Universities in STEM and Social Science disciplines who have completed research and are now at the stage of writing International Publication in English Preference will be given to academics who have completed empirical research and are ready to write it up for international publication.

Preference is also given to those who are working in the STEM areas of Engineering and Computer Science, and the Social Science areas of Applied Linguistics, Business & Management and Education, but all academics working in STEM and Social Science areas are encouraged to apply.

To enable selection, please complete the following:

THE DETAILS

1.	Full Name	:	Rhiza S. Sadjad
2.	Academic Qualifications	:	S3
3.	Position	:	Senior Lecturer
4.	Department or Research Center	:	Dept. of Electrical Engineering
5.	University / Institutionn	:	Hasanuddin University, Makassar, INDONESIA
6.	Email Contact	:	rhiza@unha.ac.id
7.	Mobile Phone Number	:	+62819669957
8.	Your Line manager (e.g. head of department, Project Manager)	:	Prof. Faizal Arya Samman

THE RESEARCH

1.	Discipline	:	Electrical Engineering
2.	Did you conduct the research you are writing up for a Master Degree/PhD Degree/ as part of larger project/other?	:	As a part of a larger project
3.	Please describe the experimental research you have completed	:	I have completed some simulation and now I am beginning to design a couple of labroratory experiments to validate the simulation results.

THE JOURNAL ARTICLE

1.	Have you had any experience of research publication in Q1 or Q2 journal? Please give details (in English or in Indonesian)	:	No, not by myself
2.	Have you identified a journal where you want to publish?	:	IEEE Transactions on Instrumentation and Measurements
3.	Have you drafted any of the following? (please give details)		
	a. Title	:	**A Root-Mean-Square-based Measurement Method to Optimize a Parameter in the Control Systems Design**

b. Introduction : Classical methods to determine a parameter in the control systems design have been developed for almost a hundred years [1] since the steam engine's governor was invented. The most common methods are derived analytically from the system's responses to a certain input. The time response of a system to a step-input is one of the most common ways to characterize the performance of a control system [2]. The frequency response is also commonly used such as in methods based on the Nyquist criteria [3], or other methods. Those methods based on the time response or the frequency response or both are usually valid and analytically verified, but in the field they - at least most of them - are not easily implemented due to a couple of reasons, among others for instance: (1) the methods require the use of sophisticated equipment such as an oscilloscope with the capability of displaying one-shot signals or a spectrum-analyzer for the frequency response, (2) the inputs should be a certain kind that is not easy to generate (an “ideal” step-function or an impulse-function □(t) never actually exists), (3) even if the specific inputs may be approximated for some cases, they are not always applicable, for example: a step input of armature voltage cannot be actually applied to a large DC motor. Measuring equipments - particularly used in electrical engineering - mostly display the measurement results in rms values - also called “effective” values - especially when the signal being measured varies with time considerably [4]. Other physical units are typically converted into electrical quantities using sensors, and then their rms values are measured.

c. Theory : This method is proposed to be applied in a practical situation in the field, so that all quantities are supposed to be physically - or to be more specific: electrically - measureable. All calculations involving the measured quantities should be made available either in analog or digital forms, or both, at the real time during the system operation. The following defined variables are in scalar form for single-input single-output systems, however, they can be generalized into vector and matrix forms for multi-input multi-output systems or systems with multi-variables. Firstly, we define the error e(t) as the deviation of the actual output y(t) as compared to the desired output y'(t): $e(t)=y(t)-y'(t)$ (1) This error is caused by an arbitrary disturbance, which is supposed to be repeatable, most preferably periodic, so that we can measure the rms value of e(t), E, as follows [5]: $E=\sqrt{1\ T}\int 0\ T\ [e(t)]2dt$ (2) where T is the time period of the disturbance if it is periodic. If the disturbance is not periodic, then we determine T as a finite period of time when the disturbance still considerably affecting the output. Secondly, …..

d. Methods : N/A

e. Results : N/A

f. Discussion : N/A

g. Conclusion : N/A

THE ABILITY (please choose one)

Are you available for writing training in **28-29 Oktober 2019** – Jakarta ? YES