

**FACULTY OF INDUSTRIAL TECHNOLOGY INTERNATIONAL CONGRESS**

**(FoITIC)**

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**International Conference**

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### Reviewer:

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Dr. Winarno Sugeng	Informatics Engineering	Itenas – Indonesia

### Edited by:

Dr. Dani Rusirawan  
Dr. Dyah Setyo Pertiwi  
Dr. Fahmi Arif  
Mr. Liman Hartawan  
Ms. Dina Budhi Utami  
Mr. Muktiadi Akhmad Januar

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### Conference Organizer:

Faculty of Industrial Technology, Institut Teknologi Nasional Bandung - Indonesia  
Jl. PKHH. Mustapa No. 23 Bandung 40124, West Java - INDONESIA  
Phone: +62-22- 7272215, Fax: +62-22 – 7202892  
Email: foitic@itenas.ac.id,  
Website: <http://foitic.itenas.ac.id>.  
**[www.itenas.ac.id](http://www.itenas.ac.id)**

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## **PREFACE**

### **WELCOME FROM THE RECTOR INSTITUT TEKNOLOGI NASIONAL BANDUNG**

Dear speakers and participants,

Welcome to Bandung and welcome to Itenas campus!

It is great pleasure for me to welcome you in campus of Itenas Bandung at the 1<sup>st</sup> Faculty of Industrial Technology International Congress (FoITIC) 2017.

The theme for the 1<sup>st</sup> FoITIC 2017 “Toward Reliability Renewable and Sustainable Energy Systems: Challenges and Opportunities”, is very relevant with the current hot issues about climate change, growing populations and limited fossil fuel resources.

We believe that scientists and researchers will hand in hand with industrial experts, to create and develop new renewable and sustainable technologies that enable human to make products and services more efficient, protect environment and keep people healthier.

I am deeply grateful appreciative to the Faculty of Industrial Technology Itenas, Indonesian Society Reliability, Institute of Electrical & Electronics Engineers Indonesia Society on Social Implication of Technology Chapter, IEEE CAS Hyderabad, delegates, organizing committee and many others who have contributed to the success of this conference.

I am confident that this event will serve to promote much valuable communication and information exchange among scientist – researcher and industrial expert.

May we have a successful, stimulating, fruitful and rewarding the conference.

Thank you.

**Dr. Iman Aschuri**

Rector  
Institut Teknologi Nasional Bandung

## **PREFACE**

### **WELCOME FROM THE DEAN OF FACULTY OF INDUSTRIAL TECHNOLOGY, INSTITUT TEKNOLOGI NASIONAL BANDUNG**

Dear distinguished Guest, Ladies and Gentlemen,

Welcome to the 1<sup>st</sup> Faculty of Industrial Technology International Congress (FoITIC) 2017, which is organized by Faculty of Industrial Technology, Institut Teknologi Nasional (Itenas) Bandung, in conjunction with Indonesian Society for Reliability (ISR) and Institute of Electrical & Electronics Engineers Indonesia Society on Social Implication of Technology Chapter (IEEE Indonesia SSIT Chapter). In our Faculty, we have agreed that FoITIC event will be held every two years (biennial program).

The main theme for the 1<sup>st</sup> congress is “Towards Reliable Renewable and Sustainable Energy Systems: Challenges and Opportunities”. The congress will divide into 2 (two) main programs i.e. International Conference and international workshop.

The aim of the International Conference is invites academics, researchers, engineers, government officers, company delegates and students from the field of energy and other discipline to gather, present and share the results of their research and/or work, and discuss strategies for the future utilization of renewable and sustainable energy system.

Taking this opportunity, I would like to convey my sincere thanks and appreciations to our keynote speakers and invited speakers from Szent Istvan University Hungary, IEEE Indonesia SSIT Chapter, Indonesian Society for Reliability, University Malaysia Pahang and Indonesian Wind Energy Society, workshop facilitators i.e. IEEE Circuits and Systems (IEEE CAS) Hyderabad – India) and national and international scientific committee for their support of this important event. I would also like to invite all participants in expressing our appreciation to all members of the FoITIC 2017 organizing committee for their hard work in making this conference success.

Finally, we wish you all fruitful networking during conference and workshop, and we do hope that you will reap the most benefit of it.

Do enjoy your stay in Bandung, and thank you very much!

**Dr. Dani Rusirawan**

Dean Faculty of Industrial Technology – Institut Teknologi Nasional Bandung  
Chairman of FoITIC 2017

## ACKNOWLEDGEMENT

The completion of this undertaking could not have been possible without the participation and assistance of so many people whose names may not all be enumerated. The contributions are sincerely appreciated and gratefully acknowledged. The 1<sup>st</sup> International Conference on FoITIC (Faculty of Industrial Technology Congress) Organizing Committee wishes to express its gratitude and deep appreciation to the following:

1. Dr. Imam Aschuri, Rector of Institut Teknologi Nasional Bandung;
2. All keynote and invited speakers, moderators, conference speakers, all participants and others who have in one way or another contributed for their valuable participation;
3. Institute of Electrical & Electronics Engineers Indonesia Society on Social Implication of Technology Chapter (IEEE Indonesia SSIT Chapter);
4. Institute of Electrical & Electronics Engineers Circuits and Systems (IEEE CAS), Hyderabad India;
5. Indonesian Society for Reliability (ISR);
6. Universiti Malaysia Pahang;
7. Indonesian Wind Energy Society (IWES).

## KEYNOTE AND INVITED SPEAKERS INTERNATIONAL CONFERENCE

### **Prof. Dr. Istvan Farkas (Szent Istvan University)**

Prof. Dr. Istvan Farkas is Director of Institute for Environmental Engineering System, Szent Istvan University (SZIU), Godollo – Hungary. He is also Head of Department Physics and Process Control and head of Engineering Doctoral School, at SZIU. He got Doctoral Degree from Technical University Budapest (1985). Presently, a lot of his activities devotes on International professional societies such as: International Solar Energy Societies (ISES), International Federation of Automatic Control (IFAC), European Federation of Chemical Engineering (EFChE), European Thematic Network on Education and Research in Biosystems Engineering, European Network on Photovoltaic Technologies, FAO Regional Working Group on Greenhouse Crops in the SEE Countries, Solar Energy Journal Associate Editor, Drying Technology Journal Editorial Board, etc. He was a visiting Professor in several universities: Solar Energy Applications Laboratory, Colorado University State University, Fort Collins - USA; Department of Energy, Helsinki University of Technology, Espoo - Finland; Institut for Meteorology and Physics, University of Agricultures Sciencies, Vienna - Austria; Laboratory of Bioprocess Engineering, The University of Tokyo - Japan.

### **Ahmad Taufik, M.Eng., Ph.D (Indonesian Society for Reliability)**

Ahmad Taufik, M.Eng, Ph.D (Graduated from Georgia Institute of Technology, USA – 1996) is a lecturer and a professional trainer and consultant. He is member of American Society for Metals (ASM) and American Society for Mechanical Engineer (ASME). He performs research in fatigue and fracture mechanics of oil and gas pipeline. Dr. Ahmad Taufik highly experienced in providing industrial training and consulting work more than 20 projects related to Pipelines Failure Analysis, Risk and Reliability Assessment, Repair Design, Pipeline Corrosion Protection in Oil and Gas Industries. Dr. Ahmad Taufik has been chairman and speakers for many Oil and Gas International Conferences in Indonesia, (INDOPIPE, MAPREC), Malaysia (ASCOPE), Singapore and China (IPTEC) for the last five years. He is founder of Indonesian Society Reliability (ISR) and presently he is a chairman of the ISR. Since 2006, he was work as part time lecturer at Dept. of Mechanical Engineering, Itenas.

### **Prof. Dr. Soegijardjo Soegijoko (Institut Teknologi Nasional Bandung)**

Soegijardjo Soegijoko (born in Yogyakarta, 1942) earned his Engineer Degree in Telecommunication Engineering from the Department of Electrical Engineering, Institut Teknologi Bandung (ITB), Indonesia, in 1964. His Doctor Degree (*Docteur Ingenieur*) was obtained from USTL (*Universite des Sciences et Techniques du Languedoc, Montpellier, France*) in 1980. Additionally, he has also completed a number of non-degree or post-doctoral programs, such as: tertiary education (UNSW, Australia, 1970), VLSI Design (Stanford University – 1986; UNSW- 1991; Tokyo Institute of Technology-1984, 1985, 1990).



Since 1966, he joined ITB as a teaching staff at the Department of Electrical Engineering, (currently School of Electrical Engineering & Informatics) ITB, and appointed as a Professor on Biomedical Engineering in 1998. During his academic services at ITB (from 1966 – 2007), he has actively involved in the developments and operations of various units, e.g.: Electronics Laboratory, Master Program on Microelectronics, Inter University Center on Microelectronics, Biomedical Engineering Program (Undergraduate, Master & Doctorate programs), and Biomedical Engineering Laboratory. Although he has been officially retired in 2007, he has appointed as an adjunct Professor at ITB for some years. At present (August 2017), he is an adjunct Professor at the Department of Electrical Engineering, Institut Teknologi Nasional (ITENAS) Bandung (Indonesia). His current research interests include: Biomedical Engineering Instrumentation, e-Health & Telemedicine Systems, and Biomedical Engineering Education.

He has published more than 100 international papers in the above-mentioned research interests. Moreover, he (and his colleagues) have also authored five different book chapter titles (on biomedical engineering, ehealth & telemedicine) published by Jimoondang (Korea, 2008), Springer (Singapore, 2014), CRC Press – Taylor Francis (2016), and Springer (2017).

Currently, he actively involves in various societies within the IEEE that include: EMBS, SSIT, CASS, Computer, and Education, as well as SIGHT (Special Interest Group on Humanitarian Activities). He is currently the IEEE Indonesia SSIT Chapter Chair, EMBS Chapter Chair and actively involves in the Indonesian eHealth & Telemedicine Society (IeHTS) as well as the Indonesian Biomedical Engineering Society (IBES).

Prof. Dr. Ir. Soegijardjo Soegijoko is a *Life Senior Member* of the IEEE, and can be reached through: [soegi@ieee.org](mailto:soegi@ieee.org)

### **Prof. Dr. Rizalman Mamat (Universiti Malaysia Pahang)**

Prof. Dr. Rizalman Mamat presently is Dean of Faculty Mechanical Engineering, Universiti Malaysia Pahang, Malaysia. He got Doctoral degree from University of Birmingham, United Kingdom in fuel and energy. Previously, he obtained his BSc and MSc from University Teknologi Malaysia (UTM). His field research interest is Heat transfer, Combustion, Internal Combustion Engine, Alternative Energy, Computational Fluid Dynamics, Propulsion System. Prof. Dr. Rizalman Mamat was visiting Professor at Karlsruhe University of Applied Science Germany (2017), Faculty of Engineering Universitas Abulyatama Aceh, Indonesia (2017), Faculty of Engineering Universitas Gajah Putih Aceh, Indonesia (2017), Department of Mechanical Manufacture & Automation Ningxia University, Yinchuan, China (2016), Department of Mechanical Manufacture & Automation Ningxia University, Yinchuan, China (2015).

### **Mr. Soeripno Martosaputro (Indonesia Wind Energy Society)**

Soeripno Martosaputro, graduated from Universitas Sebelas Maret (Bachelor) and University of Pancasila (MSc.). Presently, he is worked at PT UPC Renewables. Moreover, he is Chairman of Indonesia Wind Energy Society (IWES) and Chairman of Expert Board of Indonesia Wind Energy Association (IWEA). Previously he worked as a researcher at the National Institute of Aeronautics and Space (LAPAN), Aerospace Technology Center, particularly in the field of technology development and engineering of the Wind Energy Conversion Systems. He is active in the field of science and technology utilization in particular wind energy technology as speakers and resource persons in seminars nationally and internationally. He is member of the Asia Pacific Wind Energy Forum (APWEF), Indonesia National Committee World Energy Congress (KNI-WEC), Indonesia Renewable Energy Society (METI), and National Research Council (DRN). In 2012 – 2016, he was act as National Project Manager of WHYPGEN (Wind Hybrid Power Generation market initiatives Project) – UNDP Project.

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