

TECHNICAL SESSIONS

Technical Session 1

Energy and Power Engineering 1

Thursday, 28 October 2021; 13.30 – 15.00

Jimbar 1

Session Chair: I N. S. Kumara

Session Co-Chair: I N. Setiawan

1. ID 3947 **Dielectric Dissipation Factor Measurement of Power Equipment under Distorted Excitation Voltage**
(Virtual)
Pratic A Muntakim
School of Electrical Engineering and Telecommunications, University of New South Wales, Sydney, Australia
Junyang Zhang
School of Electrical Engineering and Telecommunications, University of New South Wales, Sydney, Australia
Shubin Zhang
School of Electrical Engineering and Telecommunications, University of New South Wales, Sydney, Australia
B.T. Phung
School of Electrical Engineering and Telecommunications, University of New South Wales, Sydney, Australia
2. ID 3868 **The E3A Framework: Assessment Of Energy Availability, Accessibility & Acceptability at the Provincial Level in Indonesia**
(Virtual)
Maria Retnanestri
Electrical Engineering Department, Institut Teknologi Nasional Yogyakarta, Yogyakarta, Indonesia
Hugh Outhred
IPEN Pty Ltd, Sydney, Australia
3. ID 4107 **A Study of Leakage Current Characteristic of Silicone Rubber Surface after Subjected to Ultraviolet Light**
(Virtual)
Abdul Syakur
Dept. of Electrical Engineering, Universitas Diponegoro, Semarang, Indonesia
Jumrianto
Dept. of System & Information Tech., IVET University, Semarang, Indonesia
Dessy Ariyanti
Dept. of Chemical Engineering, Universitas Diponegoro, Semarang, Indonesia
Munawar Agus Riyadi
Dept. of Electrical Engineering, Universitas Diponegoro, Semarang, Indonesia
Devi
Dept. of Electrical Engineering, Universitas Diponegoro, Semarang, Indonesia
Lusianna Silalahi
Dept. of Electrical Engineering, Universitas Diponegoro, Semarang, Indonesia
Wisnu Puji Rahayu
Dept. of Electrical Engineering, Universitas Diponegoro, Semarang, Indonesia
4. ID 3971 **Condition Monitoring of Wind Turbine Gearbox Using Multidimensional Hybrid Outlier Detection**
(Virtual)
Siyu Zhu
School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China

Zheng Qian

School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China

Bo Jing

School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China

Miaoquan Han

School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China

Zhengkai Huang

Mobile Eco-Utilities Group, User Quality and Performance Department, Baidu, Beijing, China

Fanghong Zhang

CSIC HaiZhuang Wind power Co. Ltd., Chongqing, China

Technical Session 1

Joint Track: Multimedia Telecommunications/Software Engineering and Information Systems

Thursday, 28 October 2021; 13.30 – 15.00

Jimbar 2

Session Chair: NMAE Dewi Wirastuti

Session Co-Chair: G. Sukadarmika

1. ID 3952 (Virtual) **Simulation of Signal Propagation Channel 802.11n in Indoor Condition from Direct Measurement**

Made Sutha Yadnya
Department of Electrical Engineering, Faculty of Engineering, University of Mataram

I Wayan Sudiarta
Department of Physics, Faculty of Mathematics and Natural Science, University of Mataram

I Gede Wedashwara Wedarama
Informatics Engineering, Faculty of Engineering, University of Mataram
2. ID 3941 (Virtual) **Quality of Service in Internet Network Based on Different Distances from Access Point**

Noveri Lysbetti Marpaung
Department of Electrical Engineering, Faculty of Engineering, University of Riau, Pekanbaru, Indonesia

Era Yohana Oktaviani Silalahi
Department of Electrical Engineering, Faculty of Engineering, University of Riau, Pekanbaru, Indonesia
3. ID 3920 (Virtual) **Domain Concept of E-Government Evaluation Framework in Indonesian Local Government**

Moh Hidayat Koniyo
Department of Informatics Engineering, Universitas Negeri Gorontalo, Gorontalo, Indonesia

Ida Ayu Dwi Giriantari
Department of Electrical Engineering, Udayana University, Bali, Indonesia

Made Sudarma
Department of Electrical Engineering, Udayana University, Bali, Indonesia

N. M. A. E. D. Wirastuti
Department of Electrical Engineering, Udayana University, Bali, Indonesia
4. ID 4961 (Virtual) **A Review on Swarm Intelligence Based Approach for Automatic Document Summarization**

I Made Widiartha
Doctoral Engineering Departement, Udayana University, Denpasar, Indonesia

Rukmi Sari
Doctoral Engineering Departement, Udayana University, Denpasar, Indonesia

Dewa Made Wiharta

Doctoral Engineering Departement, Udayana University, Denpasar, Indonesia

Technical Session 2

Electronic Devices and System

Thursday, 28 October 2021; 15.30 – 17.00

Jimbar 1

Session Chair: Yoga Divayana

Session Co-Chair: Ngurah Indra ER

1. ID 3839 **Performance analysis of artificial leg robot movement with PID control**
(In person) **W.Widhiada**
Mechanical Engineering dept., Faculty of Technology, University of Udayana, Badung, Indonesia
I.K.A. Admika
Mechanical Engineering dept., Faculty of Technology, University of Udayana, Badung, Indonesia
I.G.P.A.Suryawan
Mechanical Engineering dept., Faculty of Technology, University of Udayana, Badung, Indonesia
2. ID 3796 **BLDC Motor Control using a Complex Programmable Logic Device with Hall-Sensors**
(In person) **Muhammad Fajri Sachruddin**
Department of Electrical Engineering, Universitas Hasanuddin, Makassar, Indonesia
Faizal Arya Samman
Deptatment of Electrical Engineering, Universitas Hasanuddin, Makassar, Indonesia
Rhiza S. Sadjad
Department of Electrical Engineering, Universitas Hasanuddin, Makassar, Indonesia
3. ID 3770 **Three-phase Four-leg Inverter LC Filter Using FCS MPC**
(In person) **Asep Andang**
Dept. of Electrical Engineering, Universitas Siliwangi, Tasikmalaya, Indonesia
Trio Adi Pamungkas
Dept. of Power Plant, Cemindo Gemilang Bayah, Lebak, Indonesia
Nundang Busaeri
Dept. of electrical engineering, Universitas Siliwangi, Tasikmalaya, Indonesia
Rukmi Sari Hartati
Dept. of electrical engineering, Universitas Udayana, Denpasar, Indonesia
Ida Bagus Gede Manuaba
dept. of electrical engineering, Universitas Udayana, Denpasar, Indonesia
I Nyoman Satya Kumara
Dept. of electrical engineering, Universitas Udayana, Denpasar, Indonesia
4. ID 3794 **DC-AC Inverter 220-230 VAC for Home Scale Photovoltaic Systems**
(Virtual) **Faizal Arya Samman**
Department of Electrical Engineering, Universitas Hasanuddin, Makassar, Indonesia
Muhammad Aswan
Department of Electrical Engineering, Universitas Hasanuddin, Makassar, Indonesia
Andi Ejah Umraeni Salam
Department of Electrical Engineering, Universitas Hasanuddin, Makassar, Indonesia

Technical Session 2

Energy and Power Engineering 2

Thursday, 28 October 2021; 15.30 – 17.00

Jimbar 2

Session Chair: K. O. Saputra

Session Co-Chair: P. E. Duta Nugraha

1. ID 3942 **Carrier Based PWM Methods of Dual Cascaded Inverter for Solar Power Plant Solid State Transformer**
(Virtual)
I Nyoman Wahyu Satiawan
Department of Electrical Engineering, University of Mataram, Mataram, Indonesia
Ida Bagus Fery Citarsa
Department of Electrical Engineering, University of Mataram, Mataram, Indonesia
I Made Budi Suksmadana
Department of Electrical Engineering, University of Mataram, Mataram, Indonesia
Pravat Kumar Ray
Department of Electrical Engineering, National Institute of Technology Rourkela, India
2. ID 3942 **Modeling and Power Management of Electric Vehicle Charging System**
(Virtual)
Pravat Kumar Ray
Department of Electrical Engineering, National Institute of Technology, Rourkela, India
Anindya Bharatee
Department of Electrical Engineering, National Institute of Technology, Rourkela, India
Sampita Panda
Department of Electrical Engineering, National Institute of Technology, Rourkela, India
I Nyoman Wahyu Satiawan
Department of Electrical Engineering, University of Mataram, Mataram, Indonesia
3. ID 3830 **Improvement efficiency of photovoltaic system using modified perturb and observe**
(Virtual)
Ratna Ika Putri
Electrical Department, State Polytechnic of Malang, Malang, Indonesia
Ferdian Ronilaya
Electrical Department, State Polytechnic of Malang, Malang, Indonesia
Ika Noer Syamsiana
Electrical Department, State Polytechnic of Malang, Malang, Indonesia
Lie jasa
Electrical Department, Udayana University, Bali, Indonesia
4. ID 3971 **Novel Application of Heterogeneous Ensemble Learning in Fault Diagnosis of Photovoltaic Modules**
(Virtual)
Jingyue Wang
School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China
Liliang Wang
School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China
Jiaqi Qu
School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China
Zheng Qian
School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China

Technical Session 3

Energy and Power Engineering 3

Friday, 29 October 2021; 09.00 – 10.30

Jimbar 1

Session Chair: I N. Setiawan

Session Co-Chair: I N. S. Kumara

1. ID 3968 **Preliminary Performance Evaluation of a 52.2 kWp Rooftop PV System in PT PLN Research Institute**
(In person)
Agussalim Syamsuddin
Research Division, PT PLN (Persero) Research Institute, Jakarta, Indonesia
2. ID 3802 **The Development of Laboratory-Scale Oscillating Water Column OWC Test Rig with Real-Time Data Monitoring System**
(In-person)
Nurul Hiron
Department of Electrical Engineering, Faculty of Engineering, Siliwangi University, Indonesia
Ida Ayu Dwi Giriantari
Department of Electrical Engineering, Faculty of Engineering, Udayana University, Indonesia
Lie Jasa
Department of Electrical Engineering Faculty of Engineering, Udayana University, Indonesia
I Nyoman Satya Kumara
Department of Electrical Engineering Faculty of Engineering, Udayana University, Indonesia
3. ID 3802 **Green Campus Establishment Through Carbon Emission and Energy Efficiency Control**
(In-person)
Nundang Busaeri
Department of Electrical Engineering, Siliwangi University, Indonesia
Nurul Hiron
Department of Electrical Engineering, Siliwangi University, Indonesia
Ida Ayu Dwi Giriantari
Department of Electrical Engineering, Udayana University, Indonesia
Wayan Gede Ariastina
Department of Electrical Engineering, Udayana University, Indonesia
I. B. Alit
Department of Electrical Engineering, Udayana University, Indonesia
4. ID 3946 **SWOT Analysis for Biodiesel Utilization for Diesel Power Plants in Indonesia**
(Virtual)
Mujammil Asdhiyoga Rahmanta
Electrical Engineering Department, Engineering Faculty, University of Indonesia, Depok, Indonesia
Rinaldy Dalimi
Electrical Engineering Department, Engineering Faculty, University of Indonesia, Depok, Indonesia

Technical Session 3

Joint Track: Software Engineering and Information Systems/Multimedia Telecommunications

Friday, 29 October 2021; 09.00 – 10.30

Jimbar 2

Session Chair: G. Sukadarmika

Session Co-Chair: NMAE Dewi Wirastuti

1. ID 3971 **A fast and lightweight neural network for curve detection in structured-light vision sensing**
(Virtual)
Congyang Zhao
Key Laboratory of Precision Opto-mechatronics Technology, Beihang University, Beijing China
Xiaoyu Zhang
Key Laboratory of Precision Opto-mechatronics Technology, Beihang University, Beijing China
Jianing Yang
Key Laboratory of Precision Opto-mechatronics Technology, Beihang University, Beijing China
Liliang Wang
Key Laboratory of Precision Opto-mechatronics Technology, Beihang University, Beijing China
Fuqiang Zhou
Key Laboratory of Precision Opto-mechatronics Technology, Beihang University, Beijing China
Zheng Qian
Key Laboratory of Precision Opto-mechatronics Technology, Beihang University Beijing China
2. ID 3971 **Wind Turbine Condition Monitoring Based on Autoencoder and K-means**
(Virtual)
Miaoquan Han
School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China
Zheng Qian
School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China
Bo Jing
School of Instrumentation and Optoelectronic Engineering, Beihag University, Beijing, China
Siyu Zhu
School of Instrumentation and Optoelectronic Engineering, Beihang University, Beijing, China
Fanghong Zhang
CSIC HaiZhuang Wind power Co. Ltd., Chongqing, China
3. ID 4198 **Gamification Model in Scheduling and Attendance System of Traditional Village Activities**
(Virtual)
N.M.A.E.D. Wirastuti
Study Program of Electrical Engineering, Faculty of Engineering, Udayana University, Bali, Indonesia
Komang Oka Saputra
Study Program of Electrical Engineering, Faculty of Engineering, Udayana University, Bali, Indonesia
Kadek Darmaastawan
Post Graduated Study Program of Electrical Engineering, Faculty of Engineering, Udayana University, Bali, Indonesia
Is-Haka Mkwawa
School of Engineering, Computing and Mathematics, University of Plymouth, United Kingdom
4. ID 4020 **Design and Simulation of Log Periodic Dipole Array Antenna for 162 MHz AIS receiver**
(Virtual)
I G A K Diafari D.H.
Dept. of Electrical Engineering, Udayana University, Denpasar, Indonesia
I Made Oka Widyantara

Dept. of Electrical Engineering, Udayana University, Denpasar, Indonesia

D. M Wiharta

Dept. of Electrical Engineering, Udayana University, Denpasar, Indonesia

Putu Ardana

Dept. of Electrical Engineering, Udayana University, Denpasar, Indonesia

Nyoman Pramaita

Dept. of Electrical Engineering, Udayana University, Denpasar, Indonesia

Technical Session 4

Software Engineering and Information Systems

Friday, 29 October 2021; 11.00 – 12.30

Jimbar 1

Session Chair: Ngurah Indra ER

Session Co-Chair: Yoga Divayana

1. ID 3938 **Clustering of Earthquake and Volcanic Eruption Trauma Survivor Groups using K-Means Algorithm**
(In-person)
Sri Widyanti Ginting
Doctoral Engineering Science, Udayana University, Denpasar, Indonesia
Rukmi Sari Hartati
Doctoral Engineering Science, Udayana University, Denpasar, Indonesia
Made Sudarma
Doctoral Engineering Science, Udayana University, Denpasar, Indonesia
Ida Bagus Alit Swarmardika
Doctoral Engineering Science, Udayana University, Denpasar, Indonesia
2. ID 3921 **Determination of Effective Radio Frequency Monitoring Locations Using Fuzzy-Analytical Hierarchy Process**
(In person)
Gede Eka Cahyadi
Balmon Kelas I Denpasar, Ditjen SDPPI-Kemkominfo, Denpasar, Indonesia
Gede Sukadarmika
Electrical Engineering, Universitas Udayana, Denpasar, Indonesia
Yoga Divayana
Electrical Engineering, Universitas Udayana, Denpasar, Indonesia
Nyoman Putra Sastra
Electrical Engineering, Universitas Udayana, Denpasar, Indonesia
3. ID 4969 **Impact of Covid-19 Pandemic on Electricity Consumption and Nighttime Lights Based on NPP-VIIRS DNB Image Products**
(In person)
A.R. As-syakur
Research Center for Environment, Udayana University, Bali, Indonesia
W.G. Ariastina
Department of Electrical Engineering, Udayana University, Bali, Indonesia
I N.S. Kumara
Department of Electrical Engineering, Udayana University, Bali, Indonesia
I M.O. Guna Antara
Research Center for Environment, Udayana University, Bali, Indonesia
T. Osawa
Center for Research and Application of Satellite Remote Sensing, Yamaguchi University, Yamaguchi, Japan
D.A.N. Cahyani
Bali Distribution Center, PT PLN (Persero), Bali, Indonesia

Technical Session 4

Software Engineering and Information Systems

Friday, 29 October 2021; 11.00 – 12.30

Jimbar 2

Session Chair: P. E. Duta Nugraha

Session Co-Chair: K. O. Saputra

1. ID 3813 **Palmprint Identification using SVM and CNN Method**
(Virtual)
Ayu Wirdiani
Information Technology, Udayana University, Denpasar, Indonesia
Darma Putra
Information Technology, Udayana University, Denpasar, Indonesia
Made Sudarma
Electrical Engineering, Udayana University, Denpasar, Indonesia
Rukmi Sari Hartati
Electrical Engineering, Udayana University, Denpasar, Indonesia
2. ID 3919 **EEG Study of Dasa Aksara Yoga and Improved Focus on Distance Learning Student**
(Virtual)
I Putu Agus Eka Darma Udayana
Dept. of Engineering Science, Udayana University, Denpasar, Indonesia
Made Sudarma
Dept. of Electrical Engineering, Udayana, University, Denpasar, Indonesia
I Ketut Gede Darma Putra
Dept. of Information Technology, Udayana University, Denpasar, Indonesia
I Made Sukarsa
Dept. of Information Technology, Udayana University, Denpasar, Indonesia
3. ID 3923 **Design and Control System of Sluice Gate With Web-Based Information**
(Virtual)
I Gusti Made Ngurah Desnanjaya
Computer System Engineering, STMIK STIKOM Indonesia, Denpasar, Indonesia
I Made Aditya Nugraha
Fisheries Mechanization, Marine and Fisheries Polytechnic of Kupang, Kupang, Indonesia

Note:

Indicated time is Local Bali Time (GMT+08:00)