TECHNICAL SESSIONS

Technical Session 1
Energy and Power Engineering 1
Thursday, 25 October 2018; 13:30-15:00
Session Chair: I. A. D. Giriantari

Samudra

1. ID 268   **ANFIS-based Controller Application to Regulate Firing Angle of Inverter in Average Value Model-High Voltage Direct Current Transmission System**

   I. M. Ginarsa, A.B. Muljono, I.M.A. Nrartha, I.P. Ardana

   Dept. Electrical Engineering, University of Mataram. Dept. Electrical Engineering, Udayana University

2. ID 278   **Smart Energy Meter for Electric Vehicle Based on Bluetooth And GSM Technology**

   I.M.A. Nrartha, A. B. Muljono, I M. Ginarsa, S. M. Al Sasongko, I.B.F. Citarsa

   Dept. Electrical Engineering, University of Mataram.

3. ID 292   **Sustainable energy for all: Impacts of Sustainable Development Goals implementation on household sector energy demand in Indonesia**

   Wayan G. Santika, Tania Urmee, Md. Anissuzaman, GM Shafiullah, Parisa A. Bahri

   School of Engineering and Information Technology, Murdoch University

4. ID 319   **Auto-reclose Performance Evaluation on 500kV Transmission Line with Four Circuits on One Tower**

   Aristo Adi Kusuma, Putu Agus Aditya Pramana, Kevin Gausultan H. M., Buyung Sofiarto Munir

   Transmission and Distribution Department, PLN Research Institute

5. ID 346   **Monitoring of Frequency Response in Java-Bali System during Loss of Generation Event**

   Hariadi Aji, Adi Purwanto, Eko Yudo Pramono

   Operation System Department, PT PLN (Persero) Unit Induk Pusat Pengatur Beban

6. ID 381   **An Assessment of Incentives Combination for Solar Energy Technologies – A Case Study for Chile**

   Yeliz Simsek, Carlos Mata-Torres, Tania Urmee, Parisa Arabzadeh Bahri, Rodrigo Escobar

   Department of Mechanical and Metallurgical Engineering Pontificia Universidad Católica de Chile

   School of Engineering and Information Technology, Murdoch University

Technical Session 1
Joint Track : Multimedia Telecommunication / Electronic
Devices and Systems   **Cakrawala**
Thursday, 25 October 2018; 13:30 – 15:00
Session Chair: Linawati

1.   ID 282

    The Optical Band Gap Based on K-M Function on Layer of LiTaO$_3$ with Variation Treatment of Annealing Temperature

    Nani Djohan, Richie Estrada, Nina Sevani, Hendradi Hardhienata, Irzaman

    Department of Electrical Engineering, Krida Wacana Christian University
Department of Information Technology, Krida Wacana Christian University
Department of Physics, Bogor Agricultural University

2.   ID 289   **Feature Learning Using Convolutional Neural Network for Cardiac Arrest Detection**

    Minh Tuan Nguyen, Kim Kiseon

    School of Electrical Engineering and Computer Science, Gwangju Institute of Science and Technology

3.   ID 315   **Design of Self-Tuning Regulator for Brushless DC Motor Speed Control**

    Wahyudi, Mega Rosaliana, Sumardi, Budi Setiyono

    Electrical Engineering, Diponegoro University

4.   ID 347   **Optimization of the Wideband Code Division Multiple Access Network at the BTS of Sempidi Area**

    I Made Indra Wiguna, Gede Sukadarmika, Dewa Made Wiharta

    Department of Electrical Engineering, Udayana University

5.   ID 387   **Monitoring Systems for Counting People using Raspberry Pi 3**

    K.Rantelobo, M. A. Indraswara, N. P. Sastra, D. M. Wiharta, H. F. J. Lami, H. Z. Kotta

    Department of Electrical Engineering, Universitas Nusa Cendana, Departement of Electrical Engineering, Universitas Udayana

6.   ID 452   **Contact Strategy for VDTN Data Collection in Smart Cities**

    Ngurah Indra ER, Kamal Deep SINGH, Jean-Marie BONNIN,

    IRISA/ IMT-Atlantique, Rennes-France & Udayana University, Laboratoire Hubert Curien,Universite Jean Monnet

Technical Session 2
Energy and Power Engineering 2
Thursday, 25 October 2018; 15:30 – 17:00   **Samudra**
Session Chair: W.G. Ariastina

1.   ID 291   **Simple carrier-based Space Vector PWM schemes of dual - inverter fed three-phase open-end winding motor drives with equal DC-link voltage**

    I K. Wiryajati, I. A. D. Giriantari, I N. Satya Kumara, Lie Jasa
Dept. Electrical Engineering, University of Mataram.
Dept. Electrical Engineering, Udayana University

2.	ID 343	**A Study of Optimal Power Flow Interconnection Celukan Bawang Power Plant in 150 kV Bali Electricity System**

I Nyoman Aldy Munawan, Rukmi Sari Hartati, I Wayan Sukerayasa

Electrical Engineering Department, Udayana University

3.	ID 353	**The Evaluation of Ceramic Insulator Performance Around Thermal Power Plant in Indonesia**

Brian Bramantyo S.D.A. Harsono, Buyung Sofiarto Munir, Nur Widi Priambodo, Handrea Bernando Tambunan

Transmission and Distribution, Department PLN Research Institute

4.	ID 357	**Investigation of Fault Event that Affected by The Current Transformer Position**

Putu Agus Aditya Pramana, Aristo Adi Kusuma, Buyung Sofiarto Munir, Arionmaro Asi Simaremare

Transmission and Distribution, Department PLN Research Institute

5.	ID 360	**A Study of Corn Cob (Zea Mays) Utilization as Alternative Fuel for Biomass Power Plant in Sumbawa Island**

Ahmad Jaya, Rukmi Sari Hartati, I Nyoman Satya Kumara

Departement of Electrical Engineering Faculty of Engineering Udayana University

6.	ID 361	**Intermittent Renewable Energy Source (IRES) Penetration Level into Bangka Power System**

Handrea Bernando Tambunan, Kevin Gausultan H. Mangunkusumo, Brian Bramantyo S.D.A. Harsono, Arionmaro Asi Simaremare, Nur Widi Priambodo, Buyung Sofiarto Munir.

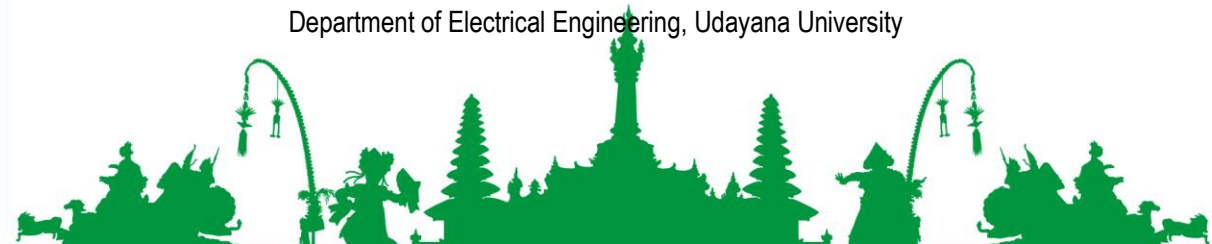Transmission and Distribution, Department PLN Research Institute

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Technical Session 2
Software Engineering and Information Systems 1
Thursday, 25 October; 15.30 – 17.00
Session Chair: N. M. A. E. D. Wirastuti

Cakrawala

1.	ID 286	**Supervised Deep Learning Based for Traffic Flow Prediction**

Hendrik Tampubolon, Pao-Ann Hsiung

Department of Information Systems, Krida Wacana Christian University
Department of Computer Science and Information Engineering, National Chung Cheng University

2.	ID 312	**Development of SMS Sending Software for Balinese Script Text on Android Platform**

Ida Bagus Kade Dwi Suta Negara, NMAE Dewi Wirastuti, Nyoman Pramaita

Department of Electrical Engineering, Udayana University

3. ID 323 **Analysis and Implementation of K-means Clustering Algorithm for Motorized-vehicles Taxation Strategy (Case Study: Bali Regional Revenue Department)**

Novandika Dwipayana, Gede Rasben Dantes, Gede Indrawan

Program Pasca Sarjana Ilmu Komputer, Universitas Pendidikan Ganesha

4. ID 352 **Performance Evaluation of Caching Solution from Three Layers Perspective for Storage Performance in Vmware-based Virtualization Environment**

Marcel

Krida Wacana Christian University / UKRIDA

5. ID 377 **Developing Balinese Culture-Based Serious Game Model: I Rajapala as a Hunter**

I Nyoman Putu Suwindra, I Ketut Gede Darma Putra, I Made Sudarma, Nyoman Putra Sastra

Study Program of Doctoral Engineering Science, Udayana University.
Department of Information Technology Faculty of Engineering,Udayana University. Department of Electrical Engineering, Udayana University

6. ID 396 **E-KUBU: Smart Home Automation System for Housing Energy Management**

Gusti Ayu Mayani Kristina Dewi, NMAED Wirastuti, A.A. Istri Ngurah Eka Karyawati, I Ketut Gede Suhartana, I Wayan Santiyasa, I Komang Ari Mogi, I Gede Arta Wibawa, Ida Bagus Gede Dwidasmara, Nyoman Dita Pahang Putra

Faculty of Animal Husbandry, Udayana University
Department of Electrical Engineering, Faculty of Engineering, Udayana University
Department of Computer Science Faculty of Math and Science, Udayana University. Department of Civil Engineering Faculty of Engineering,UPN Veteran

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Technical Session 3
Energy and Power Engineering 3
Friday, 26 October; 09:00-10:30
Session Chair: I. N. S. Kumara

Samudra

1. ID 364 **A Study of Conversion of Sardine Flour Used Cooking Oil into Biodiesel Using Microfiltration and Transesterification Techniques**

Rukmi Sari Hartati, Atmiral Ernes, I Nyoman Suprapta Winaya, Poppy Diana Sari
Electrical Engineering Department, Udayana University
Agricultural Product Technology Department, Majapahit Islamic University

2. ID 386 **Robot for Cleaning Solar PV Module to Support Rooftop PV Development**

I.P.G. Riawan, I.N.S. Kumara, C.G.I. Partha, I Nyoman Setiawan, D.A.S. Santiari
Department of Electrical Engineering, Udayana University

3. ID 388 **Comparison of Battery Reliability for Offshore Remote Telemetry Unit**

Bachtiar Rifai, N.M.A.E.D. Wirastuti

Magister of Electrical Engineering, Udayana University. Lab. Telecommunication System, Dept. Electrical Engineering,Udayana University

4. ID 389 **Performance Evaluation of 25 KW Community Microhydro in Seloliman Village East Java**

Haksari Laksmi Bestari, I Nyoman Satya Kumara, Wayan Gede Ariastina
Department of Electrical Engineering Faculty of Engineering, Udayana University

5. ID 390 **Comparison of PV Rooftop Energy Production at Denpasar City Office Buildings**

I Putu Eddy Saskara, I Nyoman Satya Kumara, I Wayan Sukerayasa

Departement of Electrical Engineering, Udayana University

6. ID 392 **Optimal PMU Placement in Bali 150 KV Network**

I G P Ari Suyasa, Rukmi Sari Hartati, Dewa Made Wiharta

PT PLN (Persero) P2B APB Bali Electrical Engineering Udayana University, Electrical Engineering Udayana University

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Technical Session 3
Software Engineering and Information Systems 2   **Cakrawala**
Friday, 26 October; 09:00-10:30
Session Chair: Y. Divayana

1. ID 316 **Virtual Backup Server Optimization on Data Centers using Neural Network**

Muhammad Riza Hilmi, Made Sudarma, Linawati

Department of Computer System STMIK STIKOM Bali. Department of Electrical and Computer Engineering Udayana University

2. ID 317 **Development of Learning Vector Quantization Neural Network for Forecasting Fluctuations in Commodity Prices**

I Putu Oka Wisnawa, Agus Dharma, Made Sudarma

Department of Electrical and Computer Engineering Faculty of Engineering Udayana University

3. ID 325 **Prediction of Sales Transaction Using Adaboost, Random Forest and Liear Regression in Retail Company**

Y. I. T. Widyanto, G.R. Dantes, I. N. Sukajaya

Post-Graduate Computer Science Program, Universitas Pendidikan Ganesha

4. ID 326 **Geographic Information System for Balinese Handicraft Export Distribution using K-Medoid and Elbow Method**

DA Indah Cahya Dewi, IA Dwi Giriantari, M Sudarma

Department of Electrical Engineering Post Graduate Program, Udayana University. Department of Electrical Engineering Udayana University

5. ID 344 **Opinion Mining on Twitter Social Media to Classify Racism Using Combination of POS Tagging, Naive Bayes Classifier, and K-Nearest Neighbor**

M. Azman Maricar, I Nyoman Satya Kumara, Made Sudarma.

Department of Electrical and Computer Engineering, Post Graduate Program, Udayana University. Department of Electrical and Computer Engineering Udayana University

6. ID 351 **Instrumentation Checking Information System for Sanglah Geophysical Station**

Ida Bagus Putu Teguh Brahmantika , I Gusti Komang Diafari Djuni , Duman Care Khrisne .

Department of Electrical Engineering, Udayana University

Technical Session 4

Energy and Power Engineering 4

Friday, 26 October; 11:00-12:30

Samudra

Session Chair : W. G. Ariastina

1. ID 394 **Performance Evaluation of Roof Top Smart Microgrid at Udayana University**

Ida A.D. Giriantari, Intan A. Medina, I W. Sukerayasa, Rina Irawati

Department of Electrical Engineering, Udayana University. R&D Center for Electricity, New,Renewable Energy and Energy Conservation Technology MEMR Republic of Indonesia

2. ID 399 **New Turbine Design Model NEST-LIE**

Lie Jasa, I Putu Ardana. Ratna Ika Putri

Electrical Engineering Department, Udayana University. Electrical Department, Politeknik Negeri Malang

3. ID 454 **Implementation of Grid-connected PV Plant in Remote Location in Sumbawa Island of Indonesia: Lesson Learned**

INS Kumara, T Urmee, Y Divayana, IN Setiawan, AAGA Pawitra, A Jaya

Department of Electrical Engineering Faculty of Engineering, Udayana University. School of Engineering and InformationTechnology, Murdoch University. Department of Electrical Engineering Faculty of Engineering, Universitas Teknologi Sumbawa

Technical Session 4

Software Engineering and Information Systems 3

Friday, 26 October; 11:00-12:30

Cakrawala

Session Chair: M. Sudarma

1. ID 391 **Evaluation of Integrated University Management Information System Using COBIT 5 Domain DSS**

Ayu Indah Saridewi, Dewa Made Wiharta, Nyoman Putra Sastra

Electrical Engineering, Udayana University

2. ID 393 **Nonformal Test-Based Gamification Model to Improve Student Motivation**

Adi Panca Saputra Iskandar, Made Sudarma, Komang Oka Saputra

Department of Electrical Engineering Faculty of Engineering, Udayana University

3. ID 403 **Indonesian Herbs and Spices Recognition using Smaller VGGNet-like Network**

D. C. Khrisne, I M. A. Suydanya

Department of Electrical Engineering Faculty of Engineering, Udayana University.

4. ID 458 **Database of Indonesian Sign Systems**

Risky Aswi Ramadhani, I Ketut Gede Darma Putra, I Made Sudarma, Ida Ayu Dwi Giriantari

Program Doktor Ilmu Teknik, Udayana University