

## Dr. Abrar, S.Si, M.Sc.



**ABRAR** born in Rao-rai, West Sumatra, January 7, 1982, he took undergraduate program from Department of Physics (study in material science), Padjadjaran University (2005). His master program was taken at School of Applied Physics (study in material science), University Kebangsaan Malaysia (2008). and his doctoral program at Institute of Microengineering and Nanoelectronics (IMEN), Universiti Kebangsaan Malaysia (2012).

He has many experiences related to teaching activities as well as Researches. Once Abrar worked as assistant for Core Physics I Subject, Padjadjaran University (2005), assistant of Interfere Physics Laboratory, Padjadjaran University (2003-2005), assistant of Advanced Physics Laboratory, Padjadjaran University (2003-2005), and Graduate Researcher Assistant (GRA) of IMEN. ♦

### RESEARCH FIELD

- Material Science, Microengineering & Nanoelectronics

## RESEARCH ACTIVITY

- Nanoparticles Synthesis and Characterization Thermal  $Al_2O_3$  Nanoparticles (2015-2016).
- Synthesis and Characterization of Nanoparticles  $Al_2O_3$  for Cooling Applications on Radiator (2015).
- Study, Design and Analysis System Thermoelectric (2014-2015).

## PUBLICATION

- Synthesis and Thermal Characterization of  $Al_2O_3$  Nanoparticles - ICOPIA 2016.
- Design of Capacitive Sensor for Water Level Measurement - International Conference on Physics and it's Applications (2016).
- An Improvement of Broadband PLC Channel Based on PS-OFDM - ICCEREC 2015.
- *Jaringan IPTV Berbasis Jaringan Broadband PLC Homeplug AV* (IPTV Network-Based Broadband Network Homeplug AV PLC) - National Seminar on Innovation and Information Technology in 2015.
- Performance and Fairness Analysis (using Jains Index) of AODV and DSDV Based on ACO in MANETs - 4<sup>th</sup> International Conference on Interactive Digital Media 2015.
- Quality of Service Improvement with 802.11e EDCA Scheme Using Enhanced Adaptive Contention Window Algorithm - 4<sup>th</sup> IEEE COMNETSAT 2015.
- Implementing Thermoelectric Generator on CPU Processor - Proceeding of International Conference on Control, Electronics, Renewable Energy, and Communications (2015).
- Design of Brush DC Motor's Speed Controller Using PI Method with Adjusted Hydrogen Fuel Feed on The PEMFC - Scientific Journal of PPI-UKM (2015).
- Fuzzy Logic Control Design for Leader Follower Method Using Zigbee Communication Module - Scientific Journal of PPI-UKM (2015).
- Proportional Control Design on Mobile Robot for Leader Follower Formation Using ZigBee Wireless Communication Module - Scientific Journal of PPI-UKM (2015).
- Electrochemically Deposited and Etched Membranes with Precisely Sized Micropores for Biological Fluids Microfiltration - J. Micromech. Microeng (2013).
- Co-Synthesis and Characterization of  $In_2O_3$  and ZnO Nanowires (Sintesis Bersama dan Pencirian Bagi Nanowayar  $In_2O_3$  dan ZnO) - Sains Malaysiana (2012).
- Growth and Characterization of Indium Doped ZnO Nanowires Using Vapor Transport Deposition Method - Advanced Materials Research (2012).
- Synthesis and Characterisation of Zn–Sn–in–O Quaternary Nanostructure System - Materials Research Innovations (2011).
- Synthesis and Characterisation of Zn–Sn–in–O Quaternary Nanostructure System - Materials Research Innovations (2011).

## RESEARCH ACTIVITY

- Design Modeling Space Time Block Code (STBC) and Differential -STBC (DSTBC) in the Case of WCDMA Wireless Communications Cooperative with Single Antenna in Fading Channel Environment (2014).
- Competency Mapping and Interests Lecturer in YPT Environmental (2013).
- Collaborative Integrative Active Learning Method (2012-2013).
- Design Modeling WCDMA Multiuser with Distributed Space Time Block Code (D-STBC) in the Case of Cooperative Wireless Communications in Rayleigh Fading Channel Environment (2013).

## PUBLICATION

- Delay Bound Analysis for Hybrid Network IEEE 802.11n HT-Mixed Mode Format WLAN Over Fiber – ICOCOE 2016.
- Bound Delay Analysis in Hybrid Networks IEEE 802.11n WLAN Greenfield format HT-Over Fiber - Seminar Nasional Inovasi dan Teknologi Aplikasi di Industri (SENIATI) 2016.
- *Perbandingan Power Spectral Density Sistem OWDM dan OFDM Pada Kanal Rayleigh* (Comparison of Power Spectral Density System OWDM and OFDM on Rayleigh Channel - Jurnal Elektro dan Telekomunikasi Terapan.
- Planning of BTS Hotel Using LTE Frequency 1800 MHz in Bandung - The 2016 International Annual Engineering Seminar (InAES 2016).
- Performance Analysis of Generalized Frequency Division Multiplexing in Various Pulse-Shaping Filter for Next Generation Communication Systems - IEEE Asia Pacific Conference on Wireless and Mobile (APWiMob 2016).
- Improving LTE Throughput with Iterative Water-Filling Algorithm - IEEE Asia Pacific Conference on Wireless and Mobile (APWiMob 2016).
- Comparison Performance Analysis of OWDM and OFDM System on Multipath Fading Rayleigh Channel - The 9<sup>th</sup> International Conference on Telecommunication Systems Services and Applications (TSSA 2015).
- The Performance Analysis of Multi-User WCDMA Systems Using D-STBC in Rayleigh Fading Channel - ICACT, KOREA (2014).
- The Impact of Event Sponsorship and TV ADS Event of Brand Image to Cross Mobile. - GTAR, Bandung (2014).
- The Impact of External and Internal Factors in the Selection of Banking to the Customer Saving Decisions 2012 Years in Bandung - ACEI, Phuket (2014).
- Single Relay Cooperative System Based on Two Schemes of Alamouti Block Code in Rayleigh Fading Channel - Jurnal Penelitian dan Pengembangan TELEKOMUNIKASI, Juni 2013.
- Performance Analysis of CCK- OFDM Over Fading Channel - APCC, IEEE, Bali (2013).
- *Optimasi Kapasitas Jaringan 2G, 3G, dan LTE dengan Teknik Joint Base Station* (Optimization of Network Capacity 2G, 3G, and LTE With joint Engineering Base Station) - Jurnal EMITOR Volume 12 No. 1, Maret 2012.
- Performance Analysis of Adaptive Power Control Based on Signal To Interference Ratio (Sir) Using Fuzzy Genetic for WCDMA - DICTAP. 2012.
- *Analisis Kinerja Wavelet Domain Communication System (WDCS) untuk Cognitive Radio* (Performance Analysis of Wavelet Domain Communication System (WDCS) for Cognitive Radio) - Jurnal penelitian dan pengembangan TELEKOMUNIKASI, Juni 2011.
- *Studi Penerapan DWDM-RoF untuk Transmisi Multi Teknologi Akses Nirkabel* (Implementation Study DWDM Transmission Multi-ROF for Wireless Access Technology) - Jurnal penelitian dan pengembangan TELEKOMUNIKASI, Juni 2011.
- *Analisis Penerapan Coding Rotated Modulation (CRM) Pada Sistem OFDM* (Rotated Coding Modulation Analysis Application (CRM) in OFDM Systems) - Jurnal penelitian dan pengembangan TELEKOMUNIKASI, Juni 2011.

## Ir. Achmad Ali Muayyadi MSc., Ph.D

**ACHMAD**, born in Kudus, April 1, 1966, has research interests covers Mobile Communications (CDMA, LTE-A, 5G, BWA, OFDM, MC-CDMA), Digital Communications (Modulation, Multiple Access, MIMO, Channel Coding), Information Theory, Communication Systems, Radio Engineering, Mobile Networks & Traffic, Satellite Communications, Adaptive Filter, Digital Broadcasting (DAB, DVB), and Telecom Regulation.

He graduated from undergraduate program of Electrical Engineering (Bandung Institute of Technology, ITB, 1990), Mobile Communications of ENST (Telecom) Paris (graduate, 1997), and Digital Communications of University of Plymouth, UK (post-graduate, 2004).

Since 1994, he has been lecturing at IT Telkom (Tel-U). and in Telkom Foundation, Ahmad held several posts. Among others, once, he served as the Coordinator of Final Project (TA) of STT Telkom (1994-1995), the Chairman of the Editorial Board of *Telekomunikasi* Journal (IT Telkom, 2009-2010), the Head of Electrical Department (Tel-U, 2013-2014), The Chairman of the Senate of Electrical Engineering Faculty (Tel-U, since 2014), and the Head of Interested Group of Transmission (Tel-U, since 2014). ♦

### RESEARCH FIELD

- Mobile Communications (CDMA, LTE-A, 5G, BWA, OFDM, MC-CDMA), Digital Communications (Modulasi, Multiple Access, MIMO, Channel Coding), Information Theory, Communication Systems, Radio Engineering, Mobile Networks & Traffic, Satellite Communications, Adaptive Filter, Digital Broadcasting



## RESEARCH ACTIVITY

- Design of System Identification Currencies Against the Dollar and Her Conversion Rupiah Based Image Processing (2016)
- Wireless Charging System for Automatic Vehicle (Automated Vehicle Guidance) (2016)
- Interfacing Robotic Hand With Arduino and Webbase (2015)
- Position settings and Automatic Charging System for Automated Guided Vehicle (2014)
- Realization of Optimization Full Proportional, Integral Derivative (PID) with Genetic Algorithms on Reversed Pendulum (2009)
- Data Retrieval System KWH-Meter with RF Wireless Communication Based Microcontroller (2009)

## PUBLICATION

- *Operasi Valas: Identifikasi Nominal dengan Metode Canny Edge Detection dan Template Matching* (Currency Operations: Identification Nominal Canny Edge Detection Method and Template Matching) - SNIKO 2015. (2016)
- Design and Implementation System Automatic Guided Vehicle (AGV) Using RFID for Position Information - Journal of Measurements, Electronics, Communications, and Systems (JMECS). (2016)
- Position Estimation and Fire Detection Based on Digital Video Color Space for Autonomous Quadcopter Using Odroid XU4 - IEEE International Conference on Control, Electronics, Renewable Energy, and Communication. (2016)
- Design and Implementation of Regulatory Systems of Light, Temperature and Humidity Indoor Gardens Using Microcontroller – ICoICT (2015)
- A Research on Automated Railway Crossing Alert System using Arduino and Android - ABC International Conference on Engineering Service Learning 2014
- Modeling of vision Based Robot Formation Control Using Fuzzy Logic Controller and Extended Kalman Filter - International Journal of Fuzzy Logic and Intelligent Systems (IJFIS) 2012
- Implementation of Real-Time Positioning System Using Extended Kalman Filter and Artificial Landmark on Ceiling - Journal of Mechanical Science and Technology (JMST 2012).
- Natural and Artificial Landmark on Ceiling for Autonomous Vehicle Localization and Navigation - The 3<sup>rd</sup> SPENALO International Symposium (SIS 2011) 2011
- Identifiable Landmark Recognition Based on Fuzzy Inference System for Automatic Vehicle Localization - International Fuzzy System Association world congress (IFSA 2011)
- Error Pose Correction of Mobile Robot for SLAM Problem using Laser Range Finder Based on Particle Filter - International Conference on Control, Automation and System 2010 (ICCAS-2010)
- Combination Circular Landmarks on Ceiling for Indoor Autonomous Vehicle and Localization System - International Conference on Ubiquitous Robot and Ambient Intelligence (URAI-2010)



## Angga Rusdinar, ST., MT, Ph.D

### EXPERTISE EXPERIENCE

- Data Logger System for Digital KWH Meter, PLN. (Finished) (2007)
- Industrial Process Monitoring System, PT Armada Johnson Control. (Finished) (2014)
- Outdoor AGV, PT. Armada Johnson Control. (on Going) (2014-Now)

**BORN** in June 1, 1974, Angga Rusdinar is a lecturer of Telkom University since 2007. His research interest covering Robotics, Automated Guidance Vehicle (AGV), Control System, Industrial Autonomous System. He graduated from Electrical Engineering Department, Polytechnic of Bandung Institute of Technology, Indonesia (1996), Electrical engineering department, Tenth November Institute of Technology (ITS) (2000), School of Electrical and Informatics Engineering, Bandung Institute of Technology (ITB) (master, 2006), and School of Electrical Engineering, Pusan National

University (PNU), Republic of Korea (doctoral degree, 2014).

Between 1996 and 1997, Angga worked for NEC Nusantara Comm at Installation design department, then he worked in research and development department of Quasar Cipta Mandiri (2000-2003), as a lecturer of Electrical Engineering department at Computer University of Indonesia (UNIKOM) around 2005-2007. ♦

### RESEARCH FIELD

- Robotics, Control System, Robot Vision.



## Dr. Arfianto Fahmi, ST., MT



**ARFIANTO** Fahmi has research interests include Communication Engineering and Theory (CDMA, OFDM/OFDMA/SC-DMA), Wireless Network Resource Allocation and Management, Resource Scheduling Algorithm Design and Optimization, Advanced Wireless Technology, and Wireless Network Planning.

Born in Pati, June 3, 1975, Arfianto graduated from Telecommunications Engineering Studies of STT Telkom (undergraduate, 1998), Electrical Engineering of Bandung Institute of Technology (ITB, graduate, 2004), and Electrical Engineering of Indonesia University (postgraduate, 2013).

In Telkom University, he teaches several subjects related to telecommunications and electrical engineering. Besides, Arfianto has served as the Coordinator of Transmission Link Laboratory (STT Telkom, 2002-2004), the Head of Interested Group of Telecommunications Transmission (STT Telkom, 2004-2007), and the Head of Telecommunications Engineering Program (undergraduate, Tel-U, since 2014). ♦

### RESEARCH FIELD

- Resource Allocation and Optimization, OFDMA, SC-FDMA, Wireless Communications and Technologies, Device To Device Communications.

### ACHIEVEMENT

- Best Journals in the Doctoral Program Department of Electrical Engineering UI - Department of Electrical Engineering UI (2013).

## RESEARCH ACTIVITY

- Design and Analysis Device Discovery Efficient Energy on Communication Device to Device (D2D) - (2016).
- Full Implementation of Such Adaptive Modulation and Coding and Adaptive Technology Resource Block in Wireless Broadband - (2014-2016)
- Estimated Needs IMT Frequency Band in Indonesia until 2020 - (2015).
- Performance Simulation of OFDM System using Signal Mapping M-ary PSK and M-ary QAM on Fading Channels - (2004).
- W-CDMA Application on GSM Network for Transmission Case Multimedia - (1998).

## PUBLICATION

- Performance Evaluation of Inter-Cell Interference of LTE-A System Using Carrier Aggregation and CoMP Techniques - TSSA 2015. (2016)
- K-Mean Clustering for Chunk Formation Based on Channel Response on OFDMA Radio Resource Allocation Systems - Advanced Science Letters, ISSN: 1936-6612 (Print); EISSN: 1936-7317 (Online). (2016)
- Implementation of ICI Self Cancellation in User Velocity From 0 to 700 Km/h to Mitigate Inter-Carrier Interference - 2016 3<sup>rd</sup> International Conference on Communication and Computer Engineering (ICOCOE) Lecture Notes in Electrical Engineering (Springer) Series. (2016)
- Modified Mean Greedy Allocation Algorithm in OFDMA System with Carrier Aggregation - Advanced Research in Engineering and Information Technology International Conference. (2016)
- A Combined User-order and Chunk-order Algorithm to Minimize the Average BER for Chunk Allocation in SC-FDMA Systems – TELKOMNIKA. (2016)
- User Order Chunk Allocation using Priority in OFDMA Systems – AREITIC. (2016)
- Impact of Number of Device and Data Rate Variation in Clustering Method on Device-To-Device Communication - IEEE Asia Pacific Conference on Wireless and Mobile - IEEE Asia Pacific Conference on Wireless and Mobile (APIWimob 2015)
- Distributed FFR as the Novelty Solution of the Integration Femtocell and Macrocell in Cellular Network -
- Cluster Head Rotation: A Proposed Method for Energy Efficiency in D2D Communication - 2015 IEEE International Conference on Communication, Networks and Satellite (COMNETSAT)
- Use of Clustering Concept for Chunk Forming based on Constellation Signals on OFDMA Resource Allocation Systems - The 9<sup>th</sup> International Conference on Telecommunication Systems Services and Applications (TSSA 2015)
- Coexistence LTE with GSM and UMTS - Performance Analysis using SEAMCAT Simulation – COMNETSAT. (2015)



## Dr. Eng. Asep Suhendi, S.Si., M.Si



**ASEP** Suhendi, has research interests covering Physics, Instrumentation, Physical Engineering, Aerosols, Nanomaterials, and Chemical Engineering. He got Bachelor Degree in Physics (S.Si.) of Bandung Institute of Technology (ITB, 2005), Master Degree in Physics (M.Si.) at ITB (2008), and Doctoral Degree in Chemical Engineering (Dr. Eng.) at Hiroshima University, Japan (2013) with dissertation entitled “Self-organized Nanostructured Particles Fabricated from Spray-drying of colloidal Nanoparticles”, under supervision of Professor Kikuo Okuyama of Hiroshima University.

Frequently Asep involves himself in publishing his papers both in peer-reviewed journals and Proceedings of International Meetings. Among others, his papers was published in *Advanced Powder Technology* (2015), *Langmuir* (2013), *Material Letters* (2013), and *International Journal of Chemical and Environmental Engineering* (2012). While in international meetings his papers was published, among others, in The 6<sup>th</sup> WSEAS Int. Conf. on Education and Educational Technology (EDU) 2007, Asian Physics Symposium (APS) 2007, and 5<sup>th</sup> WSEAS Int. Conf. on Education and Educational Technology (EDU'06). ♦

### RESEARCH FIELD

- Physics, Nano Materials, Instrumentation, Aerosol, Physical Engineering, Chemical Engineering.

## RESEARCH ACTIVITY

- Equations Transformation Characteristic Curve Hall Effect Sensor for Calibration and Widening Work Areas Magnetic Field Measurement. (2016)
- Effect Analysis Dimensions and Number of Holes and Variations Air Flow Reactor Udara Terhadap Gasification Process on Rice Husk Biomass Gasification Stove. (2016)
- Development Control System Maximum Power Point Tracking (MPPT) Adaptive Power 100 Watt for Direct Current. (2016)
- Design of Turbine Generator Test Equipment Power Systems Laboratory Scale Pikohidro. (2016)
- Synthesis of Nanoparticle-Based Magnetic Film  $\text{Fe}_{16}\text{N}_2$  (2015)

## PUBLICATION

- Effect of Magnetic Field Strength on the Alignment Q1 of  $\text{Fe}_{16}\text{N}_2$  Nanoparticle Films – Nanoscale (2016)
- Low-Energy Bead-Mill Dispersion of Agglomerated Core Shell - $\text{Fe}/\text{Al}_2\text{O}_3$  and - $\text{Fe}_{16}\text{N}_2/\text{Al}_2\text{O}_3$  Ferromagnetic Nanoparticles in Toluene – Langmuir, (2015)
- Preparation and Characterization of Magnetic Films of Well-Dispersed Single Domain of Core Shell -  $\text{Fe}_{16}\text{N}_2/\text{Al}_2\text{O}_3$  nanoparticles - Advanced Powder Technology. (2015)
- Preparation and Evaluation of Magnetic Nanocomposite Fibers Containing -  $\text{Fe}_{16}\text{N}_2$  and -Fe Nanoparticles in Polyvinylpyrrolidone via Magnetoelectrospinning – Nanotechnology. (2015)
- Size- and Charge Controllable Polystyrene Spheres for Templates in the Preparation of Porous Silica Particles with Tunable Internal Hole Configurations- Chemical Engineering Journal (2014)
- Self-Assembly of Colloidal Nanoparticles Inside Charged Droplets During Spray-Drying in the Fabrication of Nanostructured Particles- Langmuir (2013)
- Preparation of Agglomeration-Free Spherical Hollow Silica Particles using an Electro spray Method with Colloidal Templating - Materials Letters (2013)
- Influences of Surface Charge, Size, and Concentration of Colloidal Nanoparticles on Fabrication of Self-organized Porous Silica in Film and Particle Forms- Langmuir (2013)
- Control of Cone-Jet Geometry During Electro Spray by an Electric Current- Advanced Powder Technology (2013)
- Agglomeration-Free Core-Shell Polystyrene/Silica Particles Preparation Using an Electro Spray Method and Additive-Free Cationic Polystyrene Core- Materials Letters (2012)
- Synthesis of Additive-Free Cationic Polystyrene Particles with Controllable Size for Hollow Template Applications- Colloid Surface A: Physicochemical and Engineering Aspects (2012)
- Ion-Induced Nucleation Rate Measurement in  $\text{SO}_2/\text{H}_2\text{O}/\text{N}_2$  Gas Mixture by Soft X-Ray Ionization at Various Pressures and Temperatures- Advanced Powder Technology (2012)

## Dr. Ir. Bambang Hidayat, IPM

### PUBLICATION

- *Analisis dan Simulasi Sistem Penilaian Kualitas Gaya Berjalan untuk Sekolah Model Berbasis Video Processing dengan Metode Variable Module Grap* (Analysis and Simulation System Quality Assessment Model Style Walk to School-Based Video Processing Method with Variable Module Grap)- SENIATI 2016
- *Analisis dan Simulasi Sistem Pengenalan Wajah dengan Metode Fisherface Berbasis Outdoor Video* (Analysis and Simulation Systems, Face Recognition Method Based Fisherface Outdoor Video) National Seminar PGRI University Yogyakarta 2015
- *Steganografi Citra Digital Menggunakan Enkripsi Berdasarkan Prinsip Kubus Rubik dan Kode BCH* (Digital Image Encryption Using Steganography Based on the Rubik's Cube Principles and BCH Code) – National Seminar PGRI University Yogyakarta. (2016)
- *Penghitungan Derajat Kelengkungan Tulang Punggung pada Manusia Menggunakan Metode Transformasi Contourlet dan K-Nearest Neighbor* (The degree of curvature counting Spine Human Transformation Method Using Contourlet and K-Nearest Neighbor) - National Seminar PGRI University Yogyakarta. (2016)
- *Digital Image Steganography with Encryption Based on Rubik's Cube Principle* - International Conference on Control, Electronics, Renewable Energy, and Communications (ICCEREC) 2016
- *Beef Cattle Weight Determine by Using Digital Image Processing* - ICCEREC 2016
- *Novel Cryptography Using Horse Step Algorithm for More Flexible Key* - IEEE Asia Pacific Conference on Wireless and Mobile (APIWimob 2015)
- *Deteksi Tulisan Tangan Menggunakan Metode Segmentasi Adaptif dan Hidden Markov Model* (Handwriting Detection Using Adaptive Segmentation and Hidden Markov Model) - CITEE 2015

### RESEARCH ACTIVITY

- G-Care & P-Care (Application Detection Granuloma Disease and Pulpitis in Teeth) (2016)

**BORN** in Boyolali, October 17, 1951, Bambang Hidayat is one of founding father of Telkom University. He graduated from electrical engineering of Bandung Institute of Technology (ITB) for the undergraduate program (1975). He got both master and doctoral degree at Universite de Rennes I Prancis (1984 and 1988), with signal processing and telecommunication signal processing as his specialization.

Between 1975 and 1978, Bambang involved in Telephone Switching Project of Telkom Jakarta. Then among others, he served as the rector of STT Telkom (1990-1994), the director of engineering and tools planning of PT Pos Indonesia (2001-2005). ♦

### RESEARCH FIELD

- Signal Processing, Telecommunication Signal processing



## Dr. Bambang Setia Nugroho, ST., MT

**BORN** in Bandung, August 29, 1976, Bambang teaches are Electromagnetic I, Electromagnetic II, and Antenna & Propagation. Both his bachelor and master degree was taken from Electrical Engineering of Bandung Institute of Technology (ITB) in 1999 and 2004 respectively. in the last five years, Bambang involved himself in many scientific activities, such as research, community development, publishing and delivering scientific papers. ♦

### RESEARCH ACTIVITY

- Design and Realization of Parameter Measurement System Automatic Antenna Integrated Software-Hardware Using Stepper Motor DC in Real time (2015)
- Flexible Frequency Reconfigurable Antenna for Application Software Defined Radio (2011)
- Phase Shifter DG Metode Butler Matriks 4x4 (2010)
- Microstrip Array Antenna for Components of Smart Antenna for Wimax Applications (2010)
- Architectural Design convolution coding and Viterbi encoding VHDL-Based Programming Languages (2009)

### PUBLICATION

- Modifikasi Pembagi Daya Wilkinson Dual Band pada Frekuensi L Band dan S – Band (Modifications Wilkinson Power Dividers Dual Band Frequency L band and S - Band) – Infotel Journal (Information Technology, Telecommunications and Electronics) (2016)
- Wideband Parasitic Antennas Design and Realization to Improve Laptop Antenna Reception - ICCEREC 2016
- Design of a 5 Bit Digital Phase Shifter for 1.27 GHz Phased Array L-Band SAR - Asia Pacific Wireless and Mobile Conference 2016
- Modified Wilkinson Power Divider 1 to 4 at S-Band - International Conference on Control, Electronics, Renewable Energy, and Communications 2016 (ICCEREC 2016)
- Enhancing Performance of Block Diagonalization Precoding in Multi User MIMO (MU-MIMO) Downlink - International Conference on Information and Communication Technology (ICoICT) 2015
- Correction of Radiation Pattern Measurement in Non-Anechoic Chamber At Frequency Range of 2 To 3 Ghz Using FFT-Based Method - The 14<sup>th</sup> International Conference on Quality in Research 2015
- A Pattern Reconfigurable of Circular Short-Circuited Patch Antenna Based on Genetic Algorithm – ICoICT 2014
- Planar Inverted-F Antenna (PIFA) Array with Circular Polarization for Nano Satellite Application- Proceedings of ISAP 2014
- Transmission-Line Analysis of Frequency Reconfigurable Rectangular-Ring Microstrip Antenna - International Journal of Microwave Science and Technology, Volume 2014, Dual-feed orthogonal circular polarized microstrip antenna with front-end parasitic for Inter Satellite Link - Proceedings of ISAP 2014
- Multiband Reconfigurable Microstrip Antenna - Proceedings of Asia Pacific Conference on Antenna and Propagation (APCAP 2013) Faculty assessment system with collective collegial leadership approach for increasing academic and research culture progressively - 2013 IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE)
- Kajian Teknis Penerapan Sharing Infrastruktur GSM dan UMTS Antar Operator Jaringan Komunikasi Bergerak (Studi Kasus: Jawa Barat) (Study Technical Application Infrastructure Sharing between GSM and UMTS Mobile Communications Network Operator (Case Study: West Java) - Proceeding National Seminar on Engineering Sciences 2012



### RESEARCH FIELD

- Antennas, Microwave, and Electromagnetic Wave Propagation.



## Dr. Basuki Rahmat, MT



**BASUKI**, has research interests including Teletraffic Engineering, Network Mathematics, Smart Grid System, Broadband Power Line Communication Network, Queuing Theory & Markov Chain in Teletraffic, Sensor Network, Engineering Control System, Adaptive control System, Digital Control System, and Network Control System.

Born in Sleman, April 5, 1963, he graduated from Gadjah Mada University (undergraduate of Physics, 1989), Bandung Institute of Technology ITB (graduate of Electrical Engineering Studies, 1995), and Indonesia University (postgraduate of Electrical Engineering Studies, 2013).

in addition to his lecturing activities, Basuki served as the secretary of program studies (STT SFB, 1996-1997), the Head of Laboratory Affairs (STT Telkom, 2002-2004), the Chairman of the Senate of Engineering Faculty of Tel-U (2013-2014), and the Vice Dean 2 of Electrical Engineering Faculty of Tel-U (since April 2014). ♦

### RESEARCH FIELD

- Teletraffic Engineering, Network Mathematics, Smart Grid System, Broadband Power Line Communication Network, Queuing Theory & Markov Chain in Teletraffic, Sensor Network, Engineering Control System, Adaptive control System, Digital Control System, and Network Control System

## RESEARCH ACTIVITY

- IPTV-Based Broadband Network PLC Network Home Plug AV (2016)
- IPTV-Based Broadband Network PLC Network Home Plug AV (2015)
- PLC pathway for data communication KWH Meter (2010)

## EXPERTISE EXPERIENCE

- Regional Electricity General Plan Study, Anambas Island (2013-2014)

## PUBLICATION

- Data Analysis of Li-Ion and Lead Acid Batteries Discharge Parameters with Simulink-MATLAB - IcoICT (2016)
- The Performance of Saturated Packet Queue System on Broadband PLC Network - IOSR Journal of Electronic and Communication Engineering (IOSR-JECE)
- Analysis Model Overflow Traffic Data Jaringan Sensor-Synchrophasor Pada Jaringan Broadband PLC - Homeplug AV (Analysis Model Overflow Traffic Sensor Network Data-Synchrophasor on Broadband Networks PLC - Homeplug AV) - Journal of Research and Development of Telecommunications
- Simulasi dan Analisis Algoritma Penjadwalan mSIR pada Kelas Layanan QoS WiMAX 802.16 (Simulation and Analysis of Algorithms Scheduling mSIR on 802.16 WiMAX QoS Service Class) - Journal of Research and Development of Telecommunications.
- An Improvement of Broadband PLC Channel Based on PS-OFDM - ICCEREC 2015
- Jaringan IPTV Berbasis Jaringan Broadband PLC Homeplug AV (IPTV Network-Based Broadband Network Homeplug AV PLC) - National Seminar on Innovation and Information Technology in 2015
- Performance and Fairness Analysis (using Jains Index) of AODV and DSDV based on ACO in MANETs - 4<sup>th</sup> International Conference on Interactive Digital Media 2015
- Quality of Service Improvement with 802.11e EDCA Scheme Using Enhanced Adaptive Contention Window Algorithm - 4th IEEE COMNETSAT 2015
- Packet Loss Analysis in Finite Buffer with ATDMA Single Channel Output Scheme for Broadband PLC Network - ICEEI ITB, Bandung (2011)
- Batch Markov Arrival Process on Multiple Access Channel in Broadband PLC Network – IcTel, Bandung (2010)
- Network Modeling for Broadband PLC – QiR, Depok (2009)

## RESEARCH ACTIVITY

- Determination of Selection and Design Racking Storage Allocation in Warehouse PT Bina Sinar Amity, as well as the determination of Routing Method Using Dynamic Programming and Genetic Algorithm Approach and Pengaplikasian Teknologi Pick to Light To Improve Order fulfilment (2016)
- Developing Trust and Privacy in e-Government Services Base on the UTAUT Model (2015)
- E-Kanban System Design at PT Dirgantara Indonesia (2014)
- Design-Based Quality Management System ISO 9001: 2008 for Batik Culture and Industry in Indonesia (2013)
- Automated Order System Design Release in Part Machining MPM in PT Dirgantara Indonesia (2013)
- Design-Based Quality Management System ISO 9001: 2008 for Batik Culture and Industry in Indonesia (2013-2014)
- Model Rack Space Optimization & Scheduling and Automated Controlling untuk proses Surface Treatment berbasis Supervisory Control and Data Acquisition (SCADA) di PT. Dirgantara Indonesia, Bandung (2012)

## PUBLICATION

- Integrated System Design for Order Release At Machining Department PT. ABC - International Seminar on Industrial Engineering and Management (2014)
- Design of Quality Management System Based ISO 9001:2008 Clause 7.5.1 for Traditional Batik Cap Industry - International Seminar on Industrial Engineering and Management (2014)
- Design of Integrated Scheduling and Automated Controlling for Surface Treatment Process using Supervisory Control and Data Acquisition (SCADA) - The IEEE International Conference on Industrial Engineering and Engineering Management (2013)
- Model Penempatan Part pada Hanger dengan Metoda Algoritma Genetik dan Penjadwalan Hanger dengan Satu Crane di Bagian Surface (Model Part Placement on Hanger with Genetic Algorithm and Scheduling Method Hanger with The Crane in Section Surface) - Production Systems Seminar 2012
- Perancangan Sistem Perakitan Distributor Valve di PT. X berdasarkan Struktur Family Produk

dengan Pendekatan Tabu Search (Distributor Valve Assembly System Design at PT. X is based on structure Family Products with Tabu Search Approach) - Technology, Industry, and Entrepreneurship Conference 2012

- Improvement of Assembly Line Design in PT SMI by Lean Manufacturing Approach - International Seminar on Industrial Engineering and Management (2012)
- Reconfigurable Mixed Model Assembly Line Design in a Dynamic Production Environment - The IEEE International Conference on Industrial Engineering and Engineering Management (2012)
- Perancangan Aplikasi MRP untuk Produk Makanan dengan Batas Kadaluausa (MRP Application Design for Food Products with Expiration Limits) – Proceeding National Conference on Information Technology and Applications (2011)

## INTELLECTUAL PROPERTY

- Patent - Dough Crackers Cutter (S00201601818) - 2016.

## Dr. Ir. Dida Diah Damajanti, M.EngSc

### RESEARCH FIELD

- Reconfigurable Assembly System, Spine Line Assembly Line, Platform based Product Family, Assembly Sequence Planning, Production and Inventory Planning, Shop Floor Control & Computer Integrated Manufacturing.

**BORN** in Bandung, 6 Maret 1970, Dida Diah Damayanti is a lecturer at Telkom University since July 1994. Her research interest covering Reconfigurable Assembly System, Spine Line Assembly Line, Platform based Product Family, Assembly Sequence Planning, Production and Inventory Planning, Shop Floor Control, and Computer Integrated Manufacturing.

She graduated from industrial engineering program (undergraduate, Bandung Institute of Technology (ITB), 1994 and her master degree was taken at The University of New South Wales Australia (1998) in the field of Manufacturing Engineering. Meanwhile her doctoral level was finished at ITB (industrial engineering, 2008).

At Telkom Foundation, Dida once served as the head of industrial engineering studies (IT Telkom, 2009-2010), the interested group head of Industrial Engineering Faculty (IT Telkom/Tel-U, 2010-2014), and since 2014 she is the dean of Industrial Engineering Faculty (Tel-U).

As an academician, frequently Dida involved herself on writing and delivering papers related to her research interest both at home and abroad. ♦





## Dr. Doan Perdana, ST., MT



**BORN** in Surakarta, June 21, 1982, Doan Perdana studied telecommunication engineering in IT Telkom between 2000-2004. Then Doan continued his graduate studies to the same university with research interests focuses on electrical and telecommunications (2012). Since 2012, he continued his studies to doctoral degree in Indonesia University especially studying electrical engineering.

Doan frequently writes any scientific papers related to his research interests both for journals or delivered orally as well as in the form of posters. Among others, his scientific papers was published in *Journal of Network (JNW)*, *International of Journal Computer Science and Network Security*, and *International Journal of Simulation, Systems, Science, and Technology*. ♦

### RESEARCH FIELD

- Telecommunication Engineering, Network Engineering, Vanet, Ad Hoc Networks.

### RESEARCH ACTIVITY

- System Design and Simulation Service Delivery Platform (SDP) as the Model Hub Broadband Content and Applications Indonesia (2016)
- Development of New Algorithm Variable CCH / Sch Interval Multichannel Mac (Vcimmac) Effect Against Node Mobility in the IEEE Standard 1609.4 (Vanets) (2015)
- Network Capacity Optimization of 2G, 3G, and LTE with techniques Joint Base Station (2015)
- Development of an Optimize New Technique Algorithm of Variable CCH Interval (VCI) with QoS Implementation using EDCA and Markov chain approach in IEEE 1609.4/802.11p standard (2015)
- Internet of Things / Intelligent Transportation for Sustainability (2014)

### INTELLECTUAL PROPERTY

- Book "Data Network Protokol" (2016)
- Patent - Method and System Access Control Channel on the Network VANET- (2015)

### ACHIEVEMENT

- Best Lecturer in West Java & Banten (2016).

## PUBLICATION

- Adaptive Control Channel Interval in VANET Based on Mobility Model and Queuing Network Analysis - Journal of Networks (2016)
- Analisa Performansi Protokol Routing DTN Maxprop dan Spray and Wait Pada Vehicular Ad Hoc Network (VANET): Bandung High Way - National Seminar on Innovation and Technology in Industrial Applications (SENIATI) 2016
- Performance Evaluation of AODV, DSDV, and ZRP Using Vehicular Traffic Load Balancing Scheme on VANETs - International Journal of Simulation Systems, Science and Technology. (2016)
- Modified Mean Greedy Allocation Algorithm in OFDMA System with Carrier Aggregation - Advanced Research in Engineering and Information Technology International Conference
- Performance Evaluation of AODV, AODV-UU, and AODV with Malicious Attack Mode on Vehicular Ad-hoc Network - 2016 Advanced Research in Engineering and Information Technology International Conference
- User Order Chunk Allocation using Priority in OFDMA Systems - AREITIC (2016)
- Routing VDTN for Delay Enhancement in V2V Clustering Network - CICSyN 2016
- Adaptive Control Channel Interval in VANET Based on Mobility Model and Queuing Network Analysis - Journal of Networks. (2016)
- Performance Evaluation Gauss-Markov Mobility Model in Vehicular Ad-Hoc Network with Spearman - Correlation Coefficient - International Seminar on Intelligent technology and Its Application. (2016)
- Non-linear Effects of High Rate Soliton Transmission on DWDM Optical Fiber Communication System - ICITISEE 2016
- Analysis of Performance and Energy Consumption Routing Protocol AODV and DSDV in RAW Mechanism for IEEE 802.11ah Standard - International Journal of Simulation- Systems, Science and Technology- IJSSST V17 (2016)
- Simulation and Analysis of Energy Consumption and Performance of Routing Protocol DSDV and OLSR on IEEE 802.11ah Standard - International Journal of Simulation- Systems, Science and Technology- IJSSST V17 (2016)
- Performance Evaluation of Vehicle Load Balancing Scheme on IEEE 802.11p standard - International Journal of Simulation- Systems, Science and Technology- IJSSST V17 - IJSSST: Vol. 17, No. 5+, UKSim2016-Cant+Orsoni. (2016)
- Analisa Kelayakan Implementasi LTE 1.8 GHz Bagi Operator Seluler di Indonesia (Feasibility Analysis Implementation of LTE 1.8 GHz for Mobile Carriers in Indonesia) - Bulletin of Posts and Telecommunications (2015)
- Analisa Tekno Ekonomi Refarming Frekuensi 2100 MHz dengan Analisis Penggantian (Techno Economic Analysis Refarming Frequency 2100 MHz with Replacement Analysis) - Bulletin of Posts and Telecommunications (2015)
- Enhancing Channel Coordination Scheme Caused by Corrupted Nakagami Signal and Mobility Models on the IEEE 1609.4 Standard - Journal of Networks (2014)
- Mobility Models Performance Analysis using Random Dijkstra Algorithm and Doppler Effect for IEEE 1609.4 Standard - International Journal of Simulation, Systems, Science, and Technology (2013)
- Performance Evaluation of Multi-channel Operation IEEE 1609.4 Based on Multi-hop Dissemination - International Journal of Computer Science and Network Security (2013)
- Enhancing Channel Coordination Scheme Caused by Corrupted Nakagami Signal and Mobility Models on the IEEE 1609.4 Standard - Journal of Networks (2014)
- Mobility Models Performance Analysis using Random Dijkstra Algorithm and Doppler Effect for IEEE 1609.4 Standard - International Journal of Simulation, Systems, Science, and Technology (2013)
- Performance Evaluation of Multi-channel Operation IEEE 1609.4 Based on Multi-hop Dissemination - International Journal of Computer Science and Network Security (2013)
- Optimasi Kapasitas Jaringan 2G, 3G, dan LTE dengan Teknik Joint Base Station (Network Capacity Optimization of 2G, 3G, and LTE with Mechanical Joint Base Station)- Emitor Journal (2012)

## Dr. Dudi Darmawan, M.Si



A lecturer of Telkom University since 1998, Dudi Darmawan has research interests covering Microcontroller, Smart Sensor, Pattern Recognition, Artificial Neural Networks, and Fuzzy Logic. In Telkom, he teaches Basic Physics, Discrete Mathematics, Mathematics Logic, Numerical Analysis, Microcontroller, and Basic Computer Programming.

Dudi got his Bachelor of Science in Physics (1998), Master of Science in Instrumentation and Control (2004), and Dr. in Physics Engineering (2015). The tree degree he got was from Bandung Institute of Technology, Indonesia.

Besides writing for scientific publications and proceedings, among others, such as *International Journal of Tomography and Simulation*, *Journal of Radiology*, *Proceedings of The 7<sup>th</sup> ICOPIA*, and *International Annual Conference of The German OR Society TD-18*, Dudi published a book entitled *Bertanya FISIKA, seri Listrik Magnet* (Asking Physics, Electric and Magnetic Series, 2010). ♦

### RESEARCH FIELD

- Microcontroller, Smart Sensor, Pattern Recognition, Artificial Neural Networks, and Fuzzy Logic. In Telkom, he teaches Basic Physics, Discrete Mathematics, Mathematics Logic, Numerical Analysis, Microcontroller, and Basic Computer Programming.

## RESEARCH ACTIVITY

- Equations transformation characteristic curve Hall Effect Sensor for Calibration and Widening Work areas Measuring Magnetic Field (2016)
- Microcontroller Applications Avr Atmega8535 on Obstacles Measurement Method DG Wheastone Bridge (2010)
- Simulation of Hanle Effect on Spintronic Material, (2009)
- Electronic Fuel Injection using Microcontroller PIC 16c84 (2000)

## PUBLICATION

- Applied Current Injection and Magnetic Field Induction Simultaneously on Electrical Impedance Tomography - International Journal of Tomography and Simulation. (2015)
- Study of Induced Current Electrical Impedance Tomography Configuration on 2 Dimensional Rectangular Objects - International Conference on Physics and Its Applications. (2015)
- Electrical Impedance Tomography in Rectangular Object Using Data Collection System Based on Absolute Boundary Potential Measurement, Journal of Radiology, OMICS (2014)
- *Artificial Neural Inverse Problem untuk Studi Penentuan Profil Difusi Arus Injeksi pada Identifikasi Anomali Permukaan Konduktor* (Artificial Neural Inverse Problem for Determination Study Profile Diffusion Flow Injection on Identification of Conductor Surface Anomalies), Proceedings National Conference on Information Systems (KNSI) (2013)
- Boundary Potential Distribution in Rectangular Object Based on Data Collection System, American Institute of Physics (AIP) Proceedings of The3<sup>rd</sup> International Conference on Theoretical and Applied Physics (2013)
- Artificial Neural Inverse Problem for Identification of Nonconductive Section of MagLev Train Track, International Annual Conference of the German OR Society TD-18 (2012)
- Application of Artificial Neural Networks to Detect Retortion of Currently Straight Wire Using Pattern Recognition of Magnetic Field Produced, Proceedings of National Conference of Information System, 2010
- Hanle Effect Modelling on Silicon Based Spintronic Semiconductor Devices, Proceedings of International Conference on Telecommunication, 2009.



## Dr. Ir. Endang Chumaidiyah, M.T.



**BORN** in Nganjuk, 23 February 1965, Endang is a lecturer with research interest including technological management, analysis of techno-economics, feasibility analysis, financial management, and cost accounting.

She graduated both her undergraduate and graduate program from Bandung Institute of Technology (ITB) in the field of industrial engineering (1988, 1999). Her doctoral degree was taken at Padjadjaran University in Economics (2012).

in Telkom Foundation, once Endang had served as the Head of Industrial Management Laboratory (STT Telkom, 1995), the Head of ICT Business and Regulation Research Center (IT Telkom, since 2012), as well as the member of senate of Tel-U since 2014. ♦

### RESEARCH ACTIVITY

- Competition Analysis and Key Business Success Factor Game Industry, Digital Content and Applications with Industry Development Simulation Model Start-Up (2016)
- Value Chain Analysis and Strategic Business Development Association of Agricultural Products Processing, Bandung District (2014)

### EXPERTISE EXPERIENCE

- Assessment Tax State Revenue (non-tax) Broadcasting, Ministry of Communication and Informatics – PT. Tritech (2013)
- Reviewer Case Study, Telkom Corporate University – PT Telkom (2013)
- Identification and Distribution Mapping System Logistics Corridor Economic Corridor 5 (Bali - Nusa Tenggara), Department of Commerce– PT Oddies (2013)
- Study of the National Electric Car Development Capital Investment Coordinating Board (BKPM) – PT Geojaya Teknik (2013)

### RESEARCH FIELD

- Technological Management, Analysis Of Techno-Economics, Feasibility Analysis, Financial Management, and Cost Accounting.

- Analysis of Earnings Per Share Before and After IPO and The Strategy (Case Study: Companies Perform IPO in Indonesia Stock Exchange Year 2013) - ISIEM 2016
- Feedback from Users on a Design of Web-Based Inventory and Product Ordering System for a Uniform Maker. - International Seminar on Industrial Engineering and Management. (2016)
- Developing Institutional Model for Association of Agricultural SMEs - 2015 International Conference on Engineering Management and Industrial Technology / Advanced Science Letters
- The Marketing Mix Strategy in Influence to the Competitive Advantage. - Proceedings The 4<sup>th</sup> International Conference on Industrial Engineering and Operations Management (IEOM) (2014)
- Marketing Mix Strategy in Increasing Marketing Performance in Indonesia Telecommunication Services Companies - Proceedings IEEE International Conference of Information and Communication Technology (IColCT) (2013)
- The Technology, Technical Skill, and R&D Capability in Increasing Profitability on Indonesia Telecommunication Service Companies. - Proceedings International Conference on Small and Medium Enterprises Development (ICSMED). (2012)
- The Technology, Technical Skill, and R&D Capability in Increasing to the Competitive Advantage in Indonesia Telecommunication Service Companies. - Proceedings The 3<sup>rd</sup> International Conference on Industrial Engineering and Operations Management (IEOM) (2012)
- The Technology, Technical Skill, and R&D Capability in Increasing to the Marketing Performance in Indonesia Telecommunication Service Companies. - Proceedings the 10<sup>th</sup> Triple Helix Conference (THC), (2012)
- *Teknologi, Kemampuan Teknis, dan Kapabilitas R&D dalam Meningkatkan Bauran Pemasaran Pada Perusahaan Jasa Telekomunikasi* (Technology, Technical Capability, and R & D Capabilities to Improve Marketing Mix in Telecommunications Services Company) - Proceedings INDECT 2012,
- Theoretical Framework: The Influence of Core Technical Competence and Core Marketing Competence to Competitive Advantage. - The 2<sup>nd</sup> International Conference on Industrial Engineering and Operations Management (IEOM (2011)
- *Kajian Pemikiran tentang Pengaruh Teknologi, Kemampuan Teknis dan Kapabilitas R&D terhadap Keunggulan Bersaing pada Industri Berbasis Teknologi Tinggi* (High Tech) (Thought Study on the Influence of Technology, Technical Capability and Capability R & D to Competitive Advantage in Technology-Based Industries (High Tech))- National Seminar Ritektra Engineering Department UNIKA-Atmajaya (2010)
- Theoretical Framework: The Influence of Technology, Technical Skill and Research & Development Capability to Competitive Advantage. - The International Conference on Industrial Engineering and Business Management (ICIEBM), UIN – Sunan Kalijaga (2010)
- The Conceptual Design of Competitive Advantage for Telecommunication Services Business in Indonesia Through Core Competence Approach. - International Conference on Telecommunication (ICTel), (2010)
- *Kompetensi Inti dan Strategi Bauran Pemasaran Dalam Meningkatkan Keunggulan Bersaing Serta Dampaknya Terhadap Kinerja Pemasaran dan Profitabilitas Pada Perusahaan Jasa Telekomunikasi* (Core Competence and Marketing Mix Strategy to Improve Competitive Advantage Marketing and Its Impact on Performance and Profitability in Telecommunications Services Company) - Indonesian Journal of Economics and Business, IJEB, UNPAD PRESS Academic Publisher (2012)
- The Technology, Technical Skill, and R&D Capability in Increasing Profitability on Indonesia Telecommunication Service Companies. - Journal Procedia Economics and Finance, Elsevier Ltd. (2012)
- *Kompetensi Inti dan Strategi Bauran Pemasaran dalam Meningkatkan Keunggulan Bersaing Pada Perusahaan Jasa Telekomunikasi* (Core Competence and Marketing Mix Strategy to Improve Competitive Advantage in Telecommunications Services Company) - Jurnal Telekomunikasi (2010)

## Dr. Ir. Erna Sri Sugesti, MSc



**BORN** in Blitar, July 25, 1966, Erna Sri Sugesti is a lecturer of Telkom University since 1992. Her research interests covering Digital and Analog Optical Fiber Communication System and Networks, Radio over Fiber Systems and WLAN over Fiber, 16-QAM Modulation and Demodulation, Intermodulation Distortion Effects, Subcarrier, Multiplexing Systems, WLAN Protocol Engineering, QoS Oriented for Real-time Services for WLAN, WLAN Traffic Modelling, and WDM/DWDM Networks.

Graduated from electrical engineering of Brawijaya University in 1991, she continued her graduate studies at The Manchester Metropolitan Univer-

sity, UK, in the field of Optoelectronic Systems (1998). For her doctoral degree, Erna studied Optoelectronic and Laser Applications at Indonesia University (2013).

in addition to lecturing, in Telkom University, once Erna was appointed, among others as the Teaching Coordinator for D3 program in Campus IV (STT Telkom, till June 1995), the Head and Coordinator for Optical Fiber Communication System Laboratory (STT Telkom, 1999-2000), the Head of Undergraduate Program of Telecommunication Engineering (Tel-U, 2013-2014), and since 2014 she served as the Vice Dean I of Academic and Student Affairs (Tel-U). ♦

## RESEARCH FIELD

- WLAN-Over-Fiber, Radio-Over-Fiber, Optical Fiber Networks, Wireless Protocol Engineering.

## RESEARCH ACTIVITY

- Design and Prototype Human Body Optical Sensor-Based Contactless Thermometer.(2016)

## PUBLICATION

- Delay Bound Analysis for Hybrid Network IEEE 802.11n HT-Mixed Mode Format WLAN over Fiber - ICOCOE. (2016)
- *Analisis Delay Bound pada Jaringan Hybrid IEEE 802.11n Format HT-Greenfield WLAN over Fiber* (Bound Delay Analysis in Hybrid Networks IEEE 802.11n WLAN Greenfield format HT-over Fiber) - National Seminar on Innovation and Technology in Industrial Applications (SENIATI) 2016
- *Analisis Daya Hilang Pada Serat Optik Melengkung Menggunakan Metode Geometris dan FDTD* (Power Analysis Missing Buckled on Optical Fiber and FDTD Method Using Geometric)- Jurnal Penelitian dan Pengembangan Telekomunikasi, Kendali, Komputer, Elektrik, dan Elektronika (TEKTRIKA) (2016)
- LinkSPath: A Novel Hybrid Restoration Scheme in High Speed Optical Networks- IEEE International Conference on Control, Electronics, Renewable Energy and Communications (ICCEREC 2015)
- Performance Evaluation of WLAN Channel Utilization of TXOPHCCA for Real-Time Applications - International Journal of Recent Technology and Engineering (IJRTE) (2-13)
- Delay Bound Analysis for Hybrid Network: IEEE 802.11g ERPOFDMWLAN Over Fiber - International Conference on Ultra Modern Telecommunication-Fiber Optic in Access Network\2010 (ICUMT-FOAN 2010),
- Analysis of Delay Bound in IEEE 802.11g WLAN Over Fiber Networks. - International Conference on Telecommunication (ICTEL 2009)



## Erwin Susanto, ST., MT., Ph.D



**BORN** in Pasuruan, East Java, September 20, 1974, Erwin Susanto teaches signal and linear system, advance control, introduction to electronics engineering, control planning method, and analysis of sturdy control.

He studied power system for his undergraduate program at Sepuluh Nopember Institute of Technology (ITS) Surabaya between 1993-1998. From the same university, he gained his master degree in 2006. Meanwhile, his doctoral degree was taken at Kumamoto University, Japan in 2012.

His recent activities, beside teaching, are doing research, giving scientific speeches, and writing for several scientific journals. ♦

### RESEARCH FIELD

- Control System.

## RESEARCH ACTIVITY

- Design and Implementation of Guaranteed Cost Control in DC Motor Reaction Wheel To Support Development of Nano Satellites in Telkom University (2016)
- Multiband Spectrum Sensing Cognitive Radio Based on Multiple Testing Procedures with Random Sample Number (2016)
- Design and Implementation System Remote Sensing Satellite Payload Nano Satellites to Achieve Independence College (2015)
- Guaranteed Cost Model in Uncertain Neutral Systems With Time Delay Changing the Time: Full System and Filtering (Filtering) (2014)
- Classification of Wood Fiber Straight and Leaning Based Digital Image Processing (2014)
- Design and Implementation of E-Procurement System in It Telkom to Support Procurement of Goods and Services Activity Electronic (2009)
- Realization of Optimization Full Proportional, Integral Derivative (PID) with Genetic Algorithms on Reversed Pendulum (2009)

## PUBLICATION

- One Layer Object Separation Algorithm in Binary Image – TELKOMNIKA Indonesian Journal of Electrical Engineering. (2016)
- Model Driven PID Controller in Water Heater System – IJECE (2016)
- Design and Implementation of Water Level Control Using Gain Scheduling PID Back Calculation Integrator Anti Windup - ICCEREC. (2016)
- Maximum Allowable Time Delay on Networked Control System Using Guaranteed Cost Method - ICCEREC 2016
- Implementation of Maximum Power Point Tracking on Photovoltaic Using Fuzzy Logic Algorithm - TELKOMNIKA. (2015)
- Guaranteed Cost Control for Uncertain Neutral Systems with a Minimal Order Observer - TELKOMNIKA. (2015)
- A DC Motor-Reaction Wheel Control Design via Guaranteed Cost Output Feedback Controller of Uncertain Neutral Systems - ICIC Express Letters. (2015)
- The Detection of straight and Slant Wood Fiber Through Slope Angle Fiber Feature - TELKOMNIKA Indonesian Journal of Electrical Engineering Vol 14 No 2. (2015)
- DC Motor- Reaction Wheel Control Design Using Linear Quadratic Controller - International Conference on Engineering and Technology for Sustainable Development (ICET4SD) 2015
- Quality of Service Improvement with 802.11e EDCA Scheme Using Enhanced Adaptive Contention Window Algorithm - 4<sup>th</sup> IEEE COMNETSAT 2015
- Design and Implementation of PID Based Baby Incubator - Journal of Theoretical and Applied Information Technology (2014)
- A Minimal Order Observer-Based Guaranteed Cost Control for Uncertain Time-Varying Delay Systems - IMA Journal of Mathematical Control and Information (2012)

## Ery Djunaedy, Ph.D



### RESEARCH FIELD

- Building Performance Simulation, Computational Fluid Dynamics, Daylighting.

**ERY** is a lecturer with research interest covering design of high performance buildings, performance measurement and verification, energy efficiency audits, building energy code development and maintenance, and financial advisory. He graduated from Engineering Physics of Bandung Institute of Technology (ITB) (Being, 1995), Building Science of National University of Singapore (MSc, 2000), and Building Physics of Technische Universiteit Eindhoven (PhD, 2005).

Around 1996-1997 he worked as building maintenance engineer of Matahari Department Stores. Then he worked as a research assistant of National University of Singapore (1998-2001), a research assistant of United Arab Emirates University (2005-2006), Research Scientist 2 of Integrated Design Laboratory, University of Idaho (2006-2008), Sustainable Design Consultant of Arup, Singapore (2008-2009), and Research Scientist 3 of Integrated Design Laboratory, University of Idaho (since 2009). ♦

### EXPERTISE EXPERIENCE

- Energy and daylighting simulation – Kompas Media Tower (2014)
- Energy and daylighting simulation – St. Alphonsus Regional Medical Center (2007)

### RESEARCH ACTIVITY

- Investment Grade Audit for a Textile Factory (2014)
- Pay-for Performance Hotel Retrofit (2012)
- Building Energy Code for Fiji (2014)
- The Cost of Building Code Non-Compliance for Cities (2014)
- Built centre Building Performance Verification (2013-2014)
- Integrated Measure Package for Existing Building Renewal (2011-2012)
- Quantifying Saving from Building Energy Code Upgrade (2011)
- Convenience Store Retrofit Technology (2011-2012)
- Cooling Effect of the Water Pool in a Naturally-Ventilated Hotel (2010)

### PUBLICATION

- Targeted Calibration of Energy Models for Existing Building – ASHRAE Annual Conference (2014)
- Evaluating Direct Energy Savings and Market Transformation Effects: A Decade of Technical Design Assistance in the North-western USA – Energy Policy (2013)
- Measuring a Decade of Market Transformation: The Pacific Northwest Integrated Design Lab Network – ACEEE Summer Study on Energy Efficiency in Buildings (2012)
- Using Performance Modelling for Re-Integration – Annual American Society of Engineering Education Conference (2011)
- Rightsizing: Using Simulation Tools to Solve the Problems of Oversizing – 12<sup>th</sup> IBPSA Conferences (2011)

## Dr.-Ing. Fiky Y. Suratman

**FIKY** is a lecturer with the subjects he delivers are Digital Signal Processing, Signal and System, Proposal for Final Project, Concept for Developing Science and Technology, Thesis I & II, and Advance Topic in Communication System. Born in Jakarta, May 2, 1976, he graduated from the Department of Physics Engineering, Bandung Institute of Technology (bachelor, 1998), Telecommunication Engineering, STEI, ITB (master, 2006), and Electrical Engineering and Informatics-Signal Processing for Telecommunications of TU-Darmstadt, Germany (doctor, 2014). ♦

### RESEARCH FIELD

- Digital Signal Processing, Signal and System



### RESEARCH ACTIVITY

- Multiband Spectrum Sensing Cognitive Radio Based on Multiple Testing Procedure With Random Sample Number (2016)
- Overcoming weakness ID Authentication Schemes Based on Smart Card (2016)
- Multi-band Spectrum Sensing Multiple Testing Procedure Based on Cognitive Radio (2015)
- Bootstrap Based Sequential Probability Ratio Test for Spectrum Sensing in Cognitive Radio (2011-2014)
- Spectrum Sensing for Cognitive Radio Based on Sub-Nyquist Sampling (2011-2013)

### PUBLICATION

- DDoS Detection Using Modified K-Means Clustering with Chain Initialization Over Landmark Window - 2015 International Conference on Control, Electronics, Renewable Energy and Communications (ICCEREC) . (2015)
- Multiple Testing Procedure Based on Energy Detector for Multiband Spectrum Sensing in Cognitive Radio - Asia Pacific Conference on Wireless and Mobile (ApiWimob 2015)
- Distributed FFR as the Novelty Solution of the Integration Femtocell and Macrocell in Cellular Network - IEEE Asia Pacific Conference on Wireless and Mobile (APIWimob 2015)
- Novel Cryptography Using Horse Step Algorithm For More Flexible Key - IEEE Asia Pacific Conference on Wireless and Mobile (APIWimob 2015)
- LinkSPath: A Novel Hybrid Restoration Scheme in High Speed Optical Networks - IEEE International Conference on Control, Electronics, Renewable Energy and Communications (ICCEREC 2015)
- P-Value Based Cooperative Multiband Spectrum Sensing for Cognitive Radio - International Conference on Wireless and Telematics (ICWT), (2015)
- An Efficient Implementation of Sequential Detector in Spectrum Sensing Under Correlated Observations – ICoICT 2015
- Multiple Testing for Sequential Probability Ratio Tests with Application to Multiband Spectrum Sensing - The IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) (2014)
- Bootstrap Based Sequential Probability Ratio Tests - The IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) (2013)
- Collaborative Spectrum Sensing Using Sequential Detection: Soft Decision vs. Hard Decision – ICoICT 2013
- Effects of Model Errors on Multiple Antenna Based Spectrum Sensing Using Sequential Detection - The 1<sup>st</sup> International Conference on Communications, Signal Processing and Their Applications (ICCSA) (2013)
- Collaborative Spectrum Sensing in Cognitive Radio Using Hard Decision Combining with Quality Information - The IEEE Workshop on Statistical Signal Processing (SSP), (2011)



## RESEARCH ACTIVITY

- Design and Implementation of Guaranteed Cost Control in DC Motor Reaction Wheel To Support Development of Nano Satellites in Telkom University (2016)
- Design and Implementation of Remote Sensing Systems to Achieve Independence Nanosatelit Payload Satellite College (2015)
- Nano research IiNUSAT Satellite-1 (2011)
- Exploration of Mathematical Functions Simple in Data Manipulation Feature Extraction and Utilization Analysis Method Log-HOS (logarithmic - High Order Statistic) (2009)
- Extraction Characteristics of High Order Statistics for the Classification of Digital Modulation Signals in Fading Environment (2009)

## EXPERTISE EXPERIENCE

- Study Team BHP Frequency Analysis Model Based ISR against FWA Telkom Flexi – PT Telkom (2010)
- Team Impact Study Setup BTS location on the Quality of Service of Cellular Mobile Network) – Ministry of Communications & Informatics (2009)
- Expert Team on Drafting Technical Monitoring System Integrated Frequency - Frequency Monitoring Agency Ditjen Postel (2009)
- Instructor Training Transmission Technology, Introduction to CDMA, Wireless Technology Overview, 3GUMTS / WCDMA Overview, 3GUMTS and Transmission Network Design, Introduction to WiMAX Technology, Introduction to Technology 3G, GPRS & EDGE Overview, Transmission Network Design) – PT Indosat (2004-2010)

## PUBLICATION

- *Pembangkit Sinyal Master Pada Sistem Navigasi LORAN-C Menggunakan FPGA* (Master Signal Generators on LORAN-C Navigation System Using FPGA) - Jurnal Infotel (Informatika, Telekomunikasi dan Elektronika) (2016)
- *Perancangan dan Realisasi Sistem Gerak Aktif Satelit - Nano Berbasis Saluran Mikrostrip* (Design and Realization of Satellite Active Motion Systems - Nano-Based Channel Microstrip) – Seniati. (2016)
- *Analisis Perencanaan Jaringan LTE-Advanced dengan Tambahan Jaringan WIFI 802.11n Sebagai Mobile Data Offload Pada Gedung Tokong Nanas Universitas Telkom* (Analysis of Network Planning LTE-Advanced Additional Network With 802.11n WIFI for Mobile Data Offload on Tokong Nanas Building Telkom University )- National Seminar on Industrial Technology and Applications (SENIATI 2016)
- Design of a 5 Bit Digital Phase Shifter for 1.27 GHz Phased Array L-Band SAR - Asia Pacific Wireless and Mobile Conference 2016
- Design of Attitude Determination and Control System using Microstrip Magnetorquer for Nanosatellite- IEEE International Conference on Control, Electronics, Renewable Energy, and Communication 2016
- Correction of Radiation Pattern Measurement in Non-Anechoic Chamber At Frequency Range of 2 To 3 Ghz Using FFT-Based Method - The 14<sup>th</sup> International Conference on Quality in Research 2015
- Design and Fabrication Chirp Generator for Synthetic Aperture Radar (SAR) - The 14<sup>th</sup> International Conference on QiR (Quality in Research). (2015)
- A Preliminary Design and Testing of The on Board Data Handling (OBDH) for Nano-Satellite Using an Atmospheric Balloon - The 1<sup>st</sup> International Conference on Wireless and Telematics (ICWT-2015)
- Analysis of Camera Array on Board Data Handling using FPGA for Nano-Satellite Application - The International Conference on Telecommunication Systems Services and Applications (TSSA)
- A Study of Square Loop Resonator Filter at 2350 MHz for Nanosatellite Application - The 1<sup>st</sup> International Conference on Wireless and Telematics (ICWT-2015)
- A Pattern Reconfigurable Short-Circuited Circular Patch Antenna Design Based on Genetic Algorithm- ICoICT 2014)
- Characterization of Series Iteration Log-periodic Fractal Koch Printed Antenna Equipped with Balun Unit - ITB Journal on ICT - J. ICT (2013)
- *Perancangan dan Realisasi Generator Sinyal pada Aplikasi Long Range Navigation (LORAN) dengan Metode Phase Locked Loop (PLL)* (Design and Realization of Signal Generator on Application Long Range Navigation (LORAN)
- Method Phase Locked Loop (PLL) - IT Telkom Journal on ICT (2012)
- *Implementasi Algoritma Filter Kalman untuk Meminimalisasi Time Difference Error pada Sistem LORAN-C* (Implementation of Kalman Filter Algorithm for Minimizing Time Difference Error on the LORAN-C system) – IT Telkom Journal on ICT (2012)

## Dr. Ir. Heroe Wijanto, MT

**HEROE** Wijanto, born in Malang, January 31, 1968, is a lecturer of Telkom University since 1992. His research interests are Electromagnetics, Antenna and Propagation; Communication Theory, Wireless Technology; Feature Extraction, Pattern Recognition; Software Defined Radio, Spectrum Sensing, Cognitive Radio; and Geoscience and Remote Sensing.

His whole higher education was from Bandung Institute of Technology. For both his undergraduate and graduate degree, Heroe studied Electrical Engineering which graduate in 1992 and 2001. and for his doctoral degree, he took Electrical and Informatics Engineering (2011).

The lecturer with frequent publications, Heroe among others was appointed as the Head of Interested Group of Telecommunications Transmission (STT Telkom, 1997-2001), the Head of Electrical Engineering Program (STT Telkom, 2004-2006), IT Telkom Quality Management Representative ISO 9001:2008 (since 2010), and Vice Rector I (academics and information system, Tel-U) since 2013. ♦

### RESEARCH FIELD

- Electromagnetics, Antenna and Propagation; Communication Theory, Wireless Technology; Feature Extraction, Pattern Recognition; Software Defined Radio, Spectrum Sensing, Cognitive Radio; and Geoscience and Remote Sensing





## RESEARCH FIELD

- Network Mathematics, Telecommunication and Internet Convergence, Data Network and Protocols, Traffic Engineering, Computer Networks, and Telecommunication Networks.

## PUBLICATION

- *Analisis Keadilan Model Penjadwalan yang Diintegrasikan dengan HARQ pada Sistem LTE* (Analysis of the Integrated Justice Scheduling Model with HARQ in LTE Systems) - Journal of Research and Development, Telecommunications, Control, Computer, Electrical, and Electronics (Teknika) (2016)
- Parameter Estimation for Coefficient Thresholding in Block-based Compressive Video Coding - CESER International Journal of Imaging and Robotics (2015)
- Sparsity Properties of Compressive Video Sampling Generated by Coefficient Thresholding - Telkomnika Journal of Telecommunication, Computing, Electronics, and Control (2014)
- Correcting Temporal Artifacts in Compressive Video Sampling with Motion Estimation - The

## Dr. Ida Wahidah, MT

**IDA** Wahidah is a lecturer of Telkom University since November 1998. She teaches Network Mathematics, Telecommunication and Internet Convergence, Data Network and Protocols, Traffic Engineering, Computer Networks, and Telecommunication Networks.

Her whole higher education was taken at Bandung Institute of Technology (ITB). First, Ida got Bachelor of Engineering (1998), then Master of Engineering (2005), and Doctor of Engineering (2014). Around March – August 1998, she worked as a researcher at the Laboratory of Radio Telecommunication and Microwave of ITB. and in Institut Teknologi Telkom, Ida once led the Laboratories of Network and Multimedia (2006-2009). ♦

## RESEARCH ACTIVITY

- Network Congestion Control Based SDN Open flow for Tactical Military Communications Systems (2016)
- Development of Video Watermarking Technology for UHD (Ultra High Definition) Environment (2015)
- Requirements Analysis Bandwidth / Traffic and Design of Virtual Private Network (VPN) National (2009)
- Making SMS Notification System and Interactive Voice Response (IVR) in a Mobile Network (2008)

- 19<sup>th</sup> Asia-Pacific Conference on Communications (APCC) (2013)
- Efficient Digital Medical Video Signal Compression using Compressive Sampling - International Conference on Women's Health in Science and Engineering (Wise Health) (2012)
- Compressive Sampling for Digital Video Signal Compression Involving Dynamic Sparsity - The 7<sup>th</sup> International Conference on Telecommunication Systems, Services, and Applications (TSSA) (2012)
- Video Signal Acquisition Using Compressive Sampling with Motion Compensation - The 26<sup>th</sup> International Conference on Image and Vision Computing New Zealand (IVCNZ) (2011)
- A Comparative Study on Video Coding Techniques with Compressive Sensing - The 3<sup>rd</sup> International Conference on Electrical Engineering and Informatics (ICEEI) (2011)
- Reconstruction Algorithm for Compressive Video Sensing Using Basis Pursuit - International Conference on Information and Communication Technology and Systems (ICTS) (2010)
- The Influence of SI and SP Slices in H.264 Standard for Video Streaming Application over WLAN - International Conference on Telecommunications (ICTel) (2010)
- Comparison Analysis of H.264 and MPEG-4 Digital Video Transport over Wireless IPv4 Networks - 6<sup>th</sup> International Conferences on Wireless and Optical Communication Networks IEEE (2009)
- Performance Improvement of High Speed Downlink Packet Access (HSDPA) Based on Traffic Scheduling Techniques - International Graduate Conference on Engineering and Science (2008)

## Dr. Eng. Indra Wahyudhin Fathona, M.Sc

### RESEARCH ACTIVITY

- Electrochemical Super Capacitor (2015-2017)
- Fabrication of Polymer-Based Short Fiber using Electro-Spinning. (2011-2014)
- Instrumentation for the Characterization of the Electric Field and the Polarization of the Ferroelectric Material. (2009-2011)
- Upgrading the Tool Flow Meter in EFA AIR Bandung (2009-2011)
- Klinostat Design Tool to Create a Micro-Gravity Environment (2009-2011)

### PUBLICATION

- PH-Controlled Self-Healing Polymer Coatings with Cellulose Nanofibers Providing an Effective Release of Corrosion Inhibitor - Corrosion Science. (2016)
- Mapping the Influence of Electrospinning Parameters on the Morphology Transition of Short and Continuous Nanofibers - Fibers and Polymers. (2016)
- One-Step Fabrication of Short Nanofibers by Electrospinning: Effect of Needle Size on Nanofiber Length - Advanced Materials Research (2014)
- Short Electrospun Composite Nanofibers: Effects of Nanoparticle Concentration and Surface Charge on Fiber Length - Current Applied Physics (2014)
- Self-Healing Polymer Coatings with Cellulose Nanofibers Served as Pathways for the Release of a Corrosion Inhibitor - Corrosion Science (2014)
- Transparent Conductive Coatings of hot-Pressed ITO Nanoparticles

**BORN** in Sumedang, August 23, 1984, Indra Wahyudhin Fathona is a lecturer of Department of Physics Engineering, School of Electrical Engineering, Telkom University. His research interests covering Electrospinning, Electrochemical, Analytical instrumentation, High voltage apparatus, and Self-healing coating.

Both of his B.Sc and M.Sc in Physics was taken at Bandung Institute of Technology (ITB) in 2009 and 2011. Meanwhile his Doctor of Engineering in Chemical Engineering was gained from Hiroshima University, Japan (2014). During his studies at ITB, he got an award from Dean of Faculty of Mathematics and Natural Sciences of Bandung Institute of Technology for Outstanding academic performance (2006-2008). ♦



### RESEARCH FIELD

- Electrospinning, Scientific Instrumentation, Electrochemical.

### ACHIEVEMENT

- Outstanding Academic Performance, Dean of Faculty of Mathematics and Natural Sciences of Bandung Institute of Technology (2006-2008)
- Certificate of Competency in Avionic - National Council for Vocational Education (2003)

on a Plastic Substrate - Chemical Engineering Journal (2014)

- Synthesis of Copper Conductive Film by Low-Temperature Thermal Decomposition of Copper-Aminediol Complexes Under an air Atmosphere - Materials Chemistry and Physics (2014)
- A simple One-Step Fabrication of Short Polymer Nanofibers via Electrospinning - Journal of Materials Science (2014)
- One-Step Fabrication of Short Electrospun Fibers Using an Electric Spark - Journal of Materials Processing Technology (2013)



## PUBLICATION

- Simulation of Temperature Distribution and Proportional Control Effects in Horizontal Fin Heat Sink CPU - Journal of Measurements, Electronics, Communications, and Systems. (2016)
- Implementing Thermoelectric Generator on CPU – ICCEREC (IEEE International Conference on Control, Electronics, Renewable Energi, and Communications. (2015)
- Raman Spectra of Multiferroic TbMnO<sub>3</sub> - Journal of Advanced Material Research, Advanced Material Research and Production. (2015)
- Correlation Between Lattice Vibrations with Charge, Orbital, and Spin Ordering in the Layered Manganite Pr<sub>0.5</sub>Ca<sub>1.5</sub> MnO<sub>4</sub> - Physical Review B (2015)
- Para-Excitons in Cu<sub>2</sub>O—a New Approach - Journal of Luminescence (2015)
- Raman Spectra of Multiferroics TbMnO<sub>3</sub> - MRS-Id Meeting (2014)
- Probing Magnetic Order in CuFeO<sub>2</sub> through Nuclear Forward Scattering in High Magnetic Fields - Physical Review B (2013)
- Temperature-Dependent and Anisotropic Optical Response of Layered Pr<sub>0.5</sub>Ca<sub>1.5</sub>MnO<sub>4</sub> Probed by Spectroscopic Ellipsometri - Phys. Rev. B (2013)
- Effects of Charge-Orbital Order-Disorder Phenomena on the Unoccupied Electronic States in the Single-Layered Half-Doped Pr<sub>0.5</sub>Ca<sub>1.5</sub>MnO<sub>4</sub> - Physical Review B (2013)
- Dynamics of Photo-Excited Electrons in Magnetically Ordered TbMnO<sub>3</sub> - Journal of Physics : Condensed Matter (2013)
- Magneto Elastic and Magneto-Electric Coupling in Iron Jarosite - International Symposium on Modern Optics and Its Application (2013)
- Photo-Induced Modulation of Ferroelectric Polarization in Multiferroic TbMnO<sub>3</sub> - International Conference of Information and Communication Technology (ICoICT) (2013)
- Spin–Lattice Coupling in Iron Jarosite - Journal of Solid State Chemistry (2012)
- Phase Transition in Multiferroic TbMnO<sub>3</sub> - Strongly Correlated Electron System (2011)
- Dynamical Properties of Pr<sub>0.5</sub>Ca<sub>1.5</sub>MnO<sub>4</sub> - International Symposium on Modern Optics and Its Application (2011)
- Phonon and Crystal Field Excitations in Geometrically Frustrated Rare Earth Titanates - Physical Review B (2008)

## Ismudiati Puri Handayani, M.Sc, Ph.D

**BORN** in Magelang, March 12, 1976, Ismudiati Puri Handayani is a lecturer of Telkom University since 1999. Her teaching subjects are Modern Physics, Introduction to semiconductor, material for engineering. Ismudiati is a graduate of Physics Department, Gadjah Mada University (Bachelor, 1999), Physics and Astronomy, University of Groningen, The Netherlands (Master, 2004), and Zernike Institute for Advanced Materials, University of Groningen, The Netherlands (Doctoral, 2014). Between 1999-2002 and 2004-2007 she was a Lecturer in Institute Technology Telkom and since 2012 this member of Indonesian Optical Society became a lecturer in Physic Engineering at Telkom University. ♦

### RESEARCH FIELD

- Condensed Matter Physics.

### RESEARCH ACTIVITY

- Probing the Electron-Photon Coupling, Exciton Formation, and Quantum Confinement in GaSenanosheets for Optoelectronic Applications (2016)
- Fabrication and Characterization of  $\text{TiO}_2$  Thin Films (2016)
- Analysis of Thermo Electric for the Conversion of Heat Into Electricity (2013-2014)
- Analysis of Heat Transfer on the CPU (2013-2014)
- Dynamics Properties of Manganite Oxide (2008-2012)
- Raman in  $\text{CuFeO}_3$  and Rare Earth Titanite (2007)
- Exploring the  $\text{MoS}_2$  Based Photo Detector



- Finite-Length Analysis for Wireless Super-Dense Networks Exploiting Coded Random Access Over Rayleigh Fading Channels - IEEE Asia Pacific Conference on Wireless and Mobile 2016 (APWiMob)
- Massive Multiway Relay Networks Applying Coded Random Access- IEEE Transaction on Communications (Conditionally Accepted) (2016)
- Graph-based Decoding for Super-Dense Multiway Multirelay Networks and Its Finite-Length Analysis - IEICE Special Issue on Information Theory and Its Applications (2016)
- Joint Decoding for Multiway Multirelay Networks with Coded Random Access- IEEE Asia Pacific Conference on Communications (APCC 2016)
- High-Dense Multiway Relay Networks Exploiting Direct Links as Side Information- IEEE International Conference on Communications (ICC 2016)
- Graph-based Decoding for High-Dense Vehicular Multiway Multirelay Networks- IEEE VTC-Spring 2016
- Exploiting the Dynamics of Rayleigh Fading Channels for Wireless High-Dense Networks with Multiple Relays- IECE General Conference 2016
- Estimating Source Correlation Online in Massive Multiway Multirelay Networks- IECE General Conference 2016
- Coded Super-Dense Networks Exploiting Side Information for the Internet- of-Things- IEICE Technical Report HPB2016 2016.
- Networked Everything Based on Massive Wireless Multi- way Multirelay Networks- IEICE Technical Report HPB 2016, 2016.
- Vehicular Massive Multiway Relay Networks Applying Graph-Based Random Access - IEEE Vehicular Networking Conference (VNC) 2015.
- Decoding Techniques for Graph-Based Random Access High Dense Multiway Multirelay Networks - IEICE Symposium on Information Theory and Its Applications (SITA 2015)
- Exploiting CEO Problems in Massive Multiway Multirelay Networks- IEICE Symposium on Information Theory and Its Applications (SITA 2015).
- Doubly Irregular Coded Slotted ALOHA for Massive Uncoordinated Multiway Relay Networks - IEICE Symposium on Information Theory and Its Applications (SITA 2015)
- Network Coding-Based Turbo HARQ for Unicast Transmission - IEEE international Conference on Electronics Technology and Industrial Development (ICE-ID 2015).
- Lossy Forwarding Techniques for Parallel Multihop-Multirelay Systems, - IEEE VTC2015-Fall 2015.
- Massive Uncoordinated Multi-way Relay Networks with Simultaneous Detections, - IEEE International Conference on Communications (ICC) Workshop on Advanced PHY and MAC Techniques for Super Dense Wireless Networks 2015.
- Partial ARQ for Wireless Relaying Systems, - IEICE General Conference 2015.
- Massive Uncoordinated Communications for Multi-way Re- lay Networks using Iterative Demapping Algorithm, - IEICE General Conference 2015.
- Monitoring Spot Configuration of RSS-based Factor Graph Geolocation Technique in Outdoor WSN Environments, - IEICE General Conference 2015.
- Uncoordinated Transmission in Multiway Relaying Systems, - International ITG Conference on System, Communications and Coding (SCC) 2015.
- Experimental Evaluation for Relaying System Allowing Intra-link Error - International ITG Conference on Systems, Communications and Coding (SCC) 2015.
- BICM-ID-Based IDMA: Convergence and Rate Region Analyses - IEICE Trans on Communications (2014)
- Joint Adaptive Network-Channel Coding for Energy-Efficient Multiple Access Relaying - IEEE Trans on Vehicular Technology (2014)
- Correlated Sources Transmission in Orthogonal Multiple Access Relay Channel: Theoretical Analysis and Performance Evaluation – IEEE Trans on Wireless Communications (2014)
- Capacity Bound Analysis of Uncoordinated Transmission in Multi-way Relaying Networks - EU IC COST 1004 2014.
- Joint Turbo Equalization and BICM-ID-based IDMA over Frequency Selective Fading Channels - IEEE International Symposium on Information Theory and Its Application (ISITA), 2014.
- RESCUE: Links-on-the-fly Technology for Robust, Efficient and Smart Communication in Unpredictable Environments - European Conference on Networks and Communications 2014
- Outage Analysis of Decode-and-Forward Relaying System Allowing Intra-link Errors - European Wireless 2014
- Iterative Spatial Demapping with Side Information for Three-way Relaying Systems - IEICE General Conf. 2014.

## RESEARCH ACTIVITY

- Polar-Raptor-Codes-Structured Super-Dense Wireless Networks for the Internet-of-Things (Pola Raptor-IoT) (2016)
- STAR-CODE: STAR Structured Relaying for Global Wireless Data Exchange (2013-2017)
- Links-on-the-fly Technology for Robust Efficient and Smart Communications in Unpredictable Environments (RESCUE) (2013-2016)
- Connect All with Turbo Codes: COATNET2 (2011-2014)
- Cooperative Decision Making Based on Slepian-Wolf/Multiple Access Wireless Networks (CODE-SWAN) (2010-2013)
- Turbo Equalization for Single Carrier Frequency Division Multiple Access (TURBO-FREMA) (2011-2012)
- Chained Turbo Equalization for Block Transmissions (CHATUE) (2009-2012)

## INTELLECTUAL PROPERTY

- Patent - Geolocation Technique Based on Factor Graph, (2015)
- Patent - Chained Turbo Equalization (CHATUE) for Block Transmission without Guard Interval, 2010
- Patent - CHATUE for SC-FDMA, (2010)
- Patent - Transmitter and Receiver, US7804764 B2 (2006)

## ACHIEVEMENT

- Achmad Bakrie Award XII - Bakrie Group (2014)
- Award of Innovation - Indonesian Diaspora (2012)
- Best Academic Contribution in Japan - Consulate General Osaka (2007)
- Best Paper at Indonesian Scientific Conference (2007)
- Best Student Paper - IEEE Radio and Wireless Symposium (2006)

## Dr. Eng. Khoirul Anwar, ST., M.Eng



### RESEARCH FIELD

- Coding Theory, Information Theory, Wireless Communications, Signal Processing, Coded Random Access.

**Dr.** Anwar graduated (cum laude) from the department of Electrical Engineering (Telecommunications), Institut Teknologi Bandung (ITB), Bandung, Indonesia in 2000. He received Master and Doctor Degrees from Graduate School of Information Science, Nara Institute of Science and Technology (NAIST) in 2005 and 2008, respectively. Since then, he was appointed as an assistant professor in NAIST.

He received best student paper award from the IEEE Radio and Wireless Symposium 2006 (RWS'06), California-USA, Best Paper of Conference held by Indonesian Student Association (ISA 2007), Kyoto, Ja-

pan in 2007, Best Paper Presenter for the track of Advanced Technology in International conference on Sustainability for Human Security (SUSTAIN), Kyoto, October 2011, and Indonesian Diaspora "Award for Innovation", Congress of Indonesian Diaspora, Los Angeles, USA, July 2012, Achmad Bakrie Award 2014, Jakarta, December 2014.

Dr. Anwar's technique is adopted by the international telecommunication union (ITU), ITU-R standard No. ITU-R S.1878 "Multi-carrier Based Transmission Techniques for Satellite Systems" also in ITU-R S.2173 (07/2010) "Multi-carrier based transmission techniques". ♦



## Dr. Levy Olivia Nur, ST., MT



**LEVY**, born in Bandung, June 12, 1978, she studied at Electrical Engineering, Faculty of Industrial Engineering, Bandung Institute of Technology (ITB) for her undergraduate degree (1996-2001). From the same department and university, she took her master degree in 2004. and in 2009, she also continued her doctoral studies to the same department of the same university.

Prior joining to Telkom University, Levy once worked at RisTi, PT Telkom Corp Indonesia as a programmer staff of wireless application protocol (2001), as temporary lecturer of electrical engineering of UNIKOM Bandung (2006-2007), and a lecturer of electrical engineering of UNIKOM (2007-2010). Since 2010, Levy became a professional lecturer of IT Telkom. ♦

### RESEARCH FIELD

- Microvawe Absorbent Material, Metamaterial, Electromagnetic Wave, Propagation

## RESEARCH ACTIVITY

- Design of Material Anti-Based Radar detection Surface Texture Technology for Platform Combat Vehicle with Frequency Settings (2013)
- Design of Material Anti-Based Radar detection Surface Texture Technology for Platform Combat Vehicle (2012)

## PUBLICATION

- *Perancangan dan Pabrikasi Penyerap Gelombang Elektromagnetik Patch Segi Enam Berbasis Surface Textured - Jurnal Penelitian dan Pengembangan Telekomunikasi, Kendali, Komputer, Elektrik, dan Elektronika* (Design and Fabrication of Electromagnetic Wave Absorbing Patch Hexagon Textured Surface Based - Journal of Research and Development, Telecommunications, Control, Computer, Electrical, and Electronics) - TEKTRIKA 2016
- Theoretical Analysis of Resonant Frequency for AMC-based Absorber Composed of Square Patch Array - International Journal of Electrical Engineering and Informatics (IJEI) (2015)
- Thin EM Wave Absorber Composed of Octagonal Patch Array and Its Characteristic Measurement - ICoICT 2015
- Bandwidth Improvement of Square Patch Array-based AMC Using Multiple Slots Technique - ICoICT

2015

- Theoretical Analysis of Resonant Frequency for AMC-based Absorber Composed of Square Patch Array - International Journal on Electrical Engineering and Informatics 2015
- Rectangular to Parallel Plate Waveguide Transition and Its Tapering Effect for Microwave Devices Characterization - International Journal of Electrical Engineering and Informatics (IJEI) (2014)
- *Rancang Bangun Material Anti deteksi Radar Berbasis Teknologi Texture Surface untuk Platform Kendaraan Tempur* (Design of Material Anti-Based Radar detection Surface Texture Technology for Platform Combat Vehicle) - INSinas, Kemenristek (2012)
- Characterization of Radar Absorber based on Square Textured Surface - IEEE International Symposium on Radio Frequency Integration Technology (RFIT) 2012
- Karakterisasi Bentuk Absorber berdasarkan Teknik Tekstur Surface (Characterization Form Absorber based Surface Texture Techniques) - FORTEI 2012
- Varactor Tunable Diode of Microwave Thin Radar Absorber Composed of Hexagonal Patch Array - AUTOLE 2010
- Characterization of Microwave Thin Radar Absorber Composed of Hexagonal Patch Array - PIERS 2010

## Dr. Ir. Luciana Andrawina, MT



### RESEARCH FIELD

- Knowledge Management, Organizational Learning.

**INTERESTED** in Knowledge Management, Human Capital, Organizational Learning, Luciana Andrawina has been teaching, among others, introduction to industrial engineering and knowledge management.

Her whole higher education degree was related to engineering and industrial management. First, she graduated from Pasundan University (undergraduate, 1993), then gained

her graduate and postgraduate from Bandung Institute of Technology-ITB (1998, 2009).

in Telkom Foundation, Luciana was appointed as the Head of Facilities Planning Laboratory (IT Telkom, 2010-2011), the Head of Interested Section of E Business and Technology (IT Telkom, 2011-2014), the Library Manager of IT Telkom (2011-2014), and Vice Dean 1 for Academic and Student Affairs (Tel-U, since 2014). ♦

## RESEARCH ACTIVITY

- Racking determination Selection and Design on Warehouse Storage Allocation PT. Bina Sinar Amity, as well as the determination of Routing Method Using Dynamic Programming and Genetic Algorithm Approach and Application of Technology Pick to Light to Improve Order Fulfillment. (2016)
- Study Manufacturing and Utilization Fertilizer Made From Organic Waste Region with composting method in Telkom University. (2015)
- Design-Based Quality Management System ISO 9001: 2008 for Batik Culture and Industry in Indonesia. (2014)
- Planning Implementation of Knowledge Management System at the Center for Documentation and Scientific Information Indonesian Institute of Sciences (WWII-LIPI). (2014)
- Mapping Knowledge in the Faculty of Industrial Engineering IT Telkom (2010)

## ACHIEVEMENT

- Charter Project Counselor in the Indonesian Science Project Olympiad (ISPO) – President of ISPO (2012)
- Best Lecturer (Runner Up) in West Java & Banten (2004)

## PUBLICATION

- Relationship of Knowledge Management Cycle and the Performance from Human, Customer and Organizational Perspective - The 8<sup>th</sup> Knowledge Management International Conference (KMICe) 2016
- Knowledge Management Enablers for the Assessment of KMS Readiness Implementation - ISIEM 2015
- Knowledge Management System with Geographic Information System Use 5C4C Method in Telkom University Marketing Division - International Conference on Knowledge Management 2015
- Knowledge Management Performance Measurement from Customer Capital Perspective in XYZ Inc - (KMICe 2014)
- Design of Quality Process Standards Based ISO 9001:2008 Clause 7.5.1 for Tradisional Batik Cap Industry - (ISIEM) (2014)
- Framework for Measuring Knowledge Management Performance using KM Balance Scorecard - (ISIEM)) (2014)
- *Perancangan Proses Bisnis untuk evaluasi kemampuan Bahasa Inggris Mahasiswa dengan menggunakan Knowledge Conversion 5C di Institut Teknologi Telkom* (Designing Business Processes to Evaluate the English Proficiency of Students Using Conversion Knowledge 5C Telkom Institute of Technology) – ICoICT 2013
- *Perancangan dan Implementasi Knowledge Management System menggunakan Metode Waterfall di Internal Pengurus HMTI IT Telkom pada Program Kerja Shakti* (Design and Implementation of Knowledge Management System using Waterfall Method in Internal Management of IT Telkom HMTI at Work Program Shakti) - , IISF-2012
- Indicators for Knowledge Management Performance Measurement from Human Capital Perspective Using Knowledge Management Balance Scorecard - (5<sup>th</sup> ISIEM) 2012
- Framework for Community of Practice based on SECI Method and KM Cycle - The 10<sup>th</sup> International Conference on ICT and Knowledge Engineering (2012)



## Dr. Memoria Rosi

**MEMORIA**, born in Padang, September 9, 1984, she teaches Physics, Engineering Mathematics, Waves and Acoustics, Solar Cell Technology, Seminar and Final Project. Her whole higher education was taken at Bandung Institute of Technology (ITB). She finished studying Instrumentation Physics (undergraduate, 2006), Electrical Material Physics (Master degree, 2009), and Electrical Material Physics (doctoral degree). in the last five years, she involved in many scientific activities, such as research, community development, publishing and delivering scientific papers. ♦

### PUBLICATION

- Hydrogel-Polymer Electrolytes Based on Polyvinyl Alcohol and Hydroxyethylcellulose for Supercapacitor Applications - International Journal of Electrochemical Science, 2014
- Syntheses and Characterizations of Supercapacitors using Nano-Sized ZnO/Nanoporous Carbon Electrodes and PVA-Based Polymer-Hydrogel Electrolytes - Material Science Forum, 2013
- Enhancement Performance of Dye Sensitized Solar Cell from Black Rice as Dye and Black Ink as Counter Electrode with Inserting Copper on the Space Between Tio2 Particles by Using Electroplating Method - Material Science Forum, 2013
- *Sintesis Karbon Nanopori dengan Variasi Jumlah NaOH dan Aplikasinya sebagai Superkapasitor* (Synthesis of Carbon Nanopori Varying Number of NaOH and Its Application as a Supercapacitor)- Prosiding Seminar Nasional Material, 2013
- Enhanced Efficiency of Solar Cell Employing Graphite/Tio2 Composite as Photon Absorbing Material Deposited with Copper - AIP Conference Proceedings, 2013

### RESEARCH FIELD

- Material Electronic, Nanoporous Material, Nanoparticle, Membrane.

### RESEARCH ACTIVITY

- Exploring the MoS2 based Photodetector (2106)
- Fabrication and Characterization Thin layer of Tio2 (2016)
- Super capacitor-Based Carbon Nanopori for Water Desalination Applications (2014)
- Germination Improvement Using External Magnetic Field and Magnetic Nanoparticle for Sustainable Agriculture (2013)
- The Fuel Cell (2010)
- Carbon-Based Supercapacitor Devices Nanopori (2010)
- NanoCkarbon (2009)



- *Superkapasitor Menggunakan Polimer Hidrogel Elektrolit dan Elektroda Karbon Nanopori* (Supercapacitor Using Hydrogel Polymer Electrolytes and Electrodes Carbon Nanopori)- Prosiding Seminar Nasional Material , 2012
- Enhanced Efficiency of Solar Cell Employing Graphite/TiO<sub>2</sub> Composite as Photon Absorbing Material Deposited with Copper - NNS - ITS, 2013
- *Sintesis Karbon Nanopori dengan Variasi Jumlah NaOH dan Aplikasinya sebagai Superkapasitor* (Synthesis of Carbon Nanopori Varying Number of NaOH and Its Application as a Supercapacitor) - Seminar Nasional Material - ITB, 2013
- *Superkapasitor Menggunakan Polimer Hidrogel Elektrolit dan Elektroda Karbon Nanopori* (Supercapacitor Using Hydrogel Polymer Electrolytes and Electrodes Carbon Nanopori - National Seminar Materials) - ITB, 2012
- Syntheses and Characterizations of Supercapacitors using Nano-Sized ZnO/Nanoporous Carbon Electrodes and PVA-Based Polymer-Hydrogel Electrolytes - Nanotechnology Applications in Energy and Environment - ITB, 2012
- Enhancement Performance of Dye Sensitized Solar Cell from Black Rice as Dye and Black Ink as Counter Electrode with Inserting Copper on the Space Between TiO<sub>2</sub> Particles by Using Electroplating Method - Nanotechnology Applications in Energy and Environment - ITB, 2012
- Synthesis and Characterization of Cross-linked Polymer Electrolyte Membranes for Supercapacitor - The 3<sup>rd</sup> Nanoscience & Nanotechnology Symposium - ITB, 2010
- Nanoporous Carbon/Exfoliated Graphite Composite for Supercapacitor Electrodes - The 4<sup>th</sup> Asian Physics Symposium - ITB, 2010
- Supercapacitors based on Nanoporous Carbon and Alkaline Polymer Electrolyte Membranes - AIP Conference Proceedings, 2010
- *Sintesis Karbon Nanopori dari Tempurung Kelapa sebagai Elektroda pada Superkapasitor* (Synthesis of Coconut Shell Carbon Nanopori as electrodes in supercapacitors) - Jurnal Nanosains dan Nanoteknologi, 2009
- *Pengolahan Citra SEM dengan Matlab untuk Analisis Pori pada Material Nanopori* (SEM Image Processing with Matlab to Pori on Materials Analysis Nanopori)- Jurnal Nanosains dan Nanoteknologi, 2009
- Synthesis and Characterization of Cross-linked Polymer Electrolyte Membranes for Supercapacitor - The 3<sup>rd</sup> Asian Physics Symposium - ITB, 2009
- *Pengaruh Suhu Penumbuhan pada Pembentukan Carbon Nanotubes dengan Metoda Spray Pyrolysis* (Effect of Growth Temperature on the Formation of Carbon Nanotubes by Spray Pyrolysis Metho) - Jurnal Sains dan Materi Indonesia, 2008
- Structural Characteristics of Carbon Nanotubes Fabricated Using Simple Spray Pyrolysis Method - Indonesian Journal of Physics, 2008
- Synthesis of Carbon Nanotubes from a Mixture of Ferrocene and Benzene by Spray Pyrolysis - The International Conference on Mathematics and Natural Sciences (ICMNS) - ITB, 2008

## PUBLICATION

- *Analisis Algoritma Handover untuk Meningkatkan Kemampuan Adaptasi Mobilitas di LTE pada Kerangka SON (Self Optimizing Network)* (Handover Algorithm Analysis To Improve Mobility Adaptation Capability LTE SON Framework) - Teknika (Jurnal Nasional) 2016
- Capacity , Quality , and Coverage Trade-off in STDMA Based Wireless Mesh Network - Advanced Science Letters, 2015
- Exploiting Geometrical Node Location for Improving Spatial Reuse in SINR-Based STDMA Multihop Link Scheduling Algorithm - International Journal of Technology 1, 2015
- Modified Greedy Physical Link Scheduling Algorithm for Improving Wireless Mesh Network Performance- TELKOMNIKA (Telecommunication, Comput. Electron. Control) 2015
- Decision-based Link Scheduling Approximation Algorithm with SINR Relaxation for Wireless Mesh Network - International Conference on Computer, Control, Informatics, and Its Applications (IC3INA2015), Bandung, 2015
- Performance Analysis of Coordinated Distributed Data Scheduling Schemes in Wireless Mesh Network - International Conference on Computer, Control, Informatics and Its Applications (IC3INA2013), Jakarta 2013
- Performance Evaluation of Modified Arborical Link Schedule (ALS) Algorithm with Protocol Interference Model for Wireless Mesh Network - IEEE Conference on Control, Systems & Industrial Informatics (ICCSII), Bandung, 2013
- Faculty Assessment System with Collective Collegial Leadership Approach for Increasing Academic and Research Culture Progressively - IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE) Denpasar, 2013
- STDMA Based Link Scheduling Algorithm Evaluation for Wireless Mesh Network - in International Conference on Telecommunication Systems, Service, and Applications (TSSA), Denpasar Bali, 2012
- Modeling for Joint Routing & Scheduling in WiMAX Wireless Mesh Network. 12<sup>th</sup> International Conference on Quality in Research (QiR) Denpasar-Bali, 2011
- Multi Hop Mesh Topology: The Future Topology for Ubiquitous Wireless Network. - Indonesia-Malaysia Microwave Antenna Conference (IMMAC) Depok, 2010

## EXPERTISE EXPERIENCE

- Structuring Impact Study BTS location on the Quality of Service of Cellular Mobile Network - Depkominfo 2009
- Expert, "Technical Drafting Frequency Integrated Monitoring System", Center for Monitoring Frequency Bali - Ditjen Postel, Prov. Bali 2009
- Team Member "Prospects of Technology Assessment Broadband in Indonesia", Depkominfo 2007
- Studies Preparation of Medium Term Development Plan of Communication and Informatics Year 2010 – 2014 - Depkominfo, 2008
- Against the Implementation Study PNPB Telecommunications Numbering Resource - Ditjen Postel 2008
- Team Members, "Map of National Telecommunication Network Infrastructure - Ditjen Postel 2008
- Team Members, "Strategic Planning Telecommunications Infrastructure West Java " - Bapeda Provinsi Jawa Barat 2008
- Team Members "Blueprint for Communications and Information Infrastructure Riau Islands Province" - Bapeda Pemprov Kep. Riau, 2007
- Study Preparation of Master Plan of National Radio Frequency Monitoring System - Ditjen Postel, 2006
- Fundamental Technical Plan of Universal Service Obligation (USO) Phase 1 - Ditjen Postel, 2006
- Manuscript Preparation Program National Medium Term Development Sub Sector Post and Telecommunications - Ditjen Postel, 2005
- Team Members, "Operator Revenues Forecast 2005- 2010 Networks and Services and Revenues Impact to All Aspects", - Ditjen Postel., 2005

## Dr. Nachwan Mufti Adriansyah, ST., MT

### RESEARCH FIELD

- Wireless Multi-Hop Network, Wireless Communication.

### RESEARCH ACTIVITY

- Polar-Raptor-Codes-Structured Super-Dense Wireless Networks for the Internet-of-Things (Pola Raptor-IoT) (2016)
- Doctoral Research: Development Timeslot Allocation Algorithm Based Spatial Position for High Capacity Wireless Networks Matajala Greedy Method Using Weighted With Geometric Partition (2009- 2016)
- Microstrip Array Antenna for Components of Smart Antenna for Wimax Application (2010)
- Phase Shifter DG Metode Butler Matriks 4x4 (2010)

### INTELLECTUAL PROPERTY

- Book “*Elektromagnetika Telekomunikasi*” - Publisher: Tel-U Press (2009)
- Book “*Antena dan Propagasi*” - Publisher: Tel-U Press (2008)
- Book “*Sistem Komunikasi Bergerak*” - Publisher: Tel-U Press (2006)

**BORN** in Bojonegoro, April 28, 1973, Nachwan teaches at Telkom University with several subjects, namely Antenna and Propagation, Basic Electromagnetics, Telecommunication Electromagnetics, Wireless Communication System, and Transmission Channel. He graduated in Telecommunication Engineering of STT Telkom (undergraduate, 1999), Information Technology at Bandung Institute of Technology (Master, 2005), and Electrical Engineering of University of Indonesia (doctor, 2016). As an academican, frequently he conducted many scientific activities. ♦





## Dr. Nanang Suryana, ST, MT



**NANANG** Suryana, born in Majalengka, December 14, 1973, teaches Introduction to Industrial Engineering (PTI), Concept of Development of Science and Technology (KPST), Financial Management, Tariff, and Cost Accounting.

Graduated from industrial engineering of Bandung Institute of Technology (undergraduate, 1999), he continued his studies to the same department and university for his master degree (2005). For his doctoral degree, Nanang studied management economics at Padjadjaran University (2012). ♦

### RESEARCH FIELD

■ Management System

## RESEARCH ACTIVITY

- Value Chain Analysis and Strategic Business Development Association of Agricultural Products Processing, Bandung district (2014)
- Influence of External Environment and Internal Company against the Company and Determination of Rates Strategy Implications Corporate Performance in the Telecommunications Industry in Indonesia (2012)
- Impact Analysis of Debt to Disclosure of Corporate Social Responsibility in Textile and Garment Manufacturing Company listed on the Indonesia Stock Exchange (2011)
- Design and Analysis of Mobile Number Portability (MNP) in Indonesia (2011)

## PUBLICATION

- Developing Institutional Model for Association of Agricultural SMEs - International Conference on Engineering Management and Industrial Technology / Advanced Science Letters 2015
- *Dampak Analisis Tingkat Hutang terhadap Pengungkapan Tanggung Jawab Sosial Perusahaan pada Perusahaan Manufaktur Tekstil dan Garmen yang terdaftar di Bursa Efek Indonesia* (Impact Analysis of Debt to Disclosure of Corporate Social Responsibility in Textile and Garment Manufacturing Company listed on the Indonesia Stock Exchange) - Scientific journals Universitas Bale Bandung (2011)
- *Desain dan Analisis Bisnis Mobile Number Portability (MNP) di Indonesia* (Design and Analysis of Mobile Number Portability (MNP) in Indonesia)- Scientific Journal Universitas Negeri Surakarta (2011)

## PUBLICATION

- Solar Flare M-Class Prediction Using Artificial Intelligence Techniques. - Journal of Theoretical and Applied Information Technology (2015)
- Analysis of Radio Astronomy Bands Using CALLISTO Spectrometer at Malaysia-UKM Station. Experimental Astronomy – SPRINGER (2015)
- Effect of Parasitic Element an 40 & MHz Antenna for Radio Astronomy Application - International Journal of Antennas and Propagation (2014)
- CALLISTO Radio Spectrometer Construction at Universiti Kebangsaan Malaysia.- IEEE Antennas and Propagation Magazine (2014)
- Beamwidth and Gain Analysis on V-shape Dipole-Based Antenna for Radio Astronomy Application 2013 - international Conference on Space Science and Communication (IconSpace 2013) Melaka, Malaysia.
- Optimization of Dipole-Based Antenna for 21 cm Line Observation. 2013 International Conference on Space Science and Communication (IconSpace 2013) Melaka, Malaysia.
- Optimization of Two-Element Antenna Array for Low-Frequency Transient Radio Telescope. - Proceeding of International Conference on Space Science and Communication - IconSpace, Malaysia, 2011
- Computational Optimization of Multiband Antennas for a Low-Frequency Radio Telescope and Their Measurement Verification. - 9<sup>th</sup> International Conference on Advances and Trends in Engineering Materials and Their Applications, AES-ATEMA Montreal, 2011
- Multiband VHF Antenna for Low-Frequency Transient Radio Telescope. Proceedings of the 13<sup>th</sup> WSEAS International Conference on Communications, Greece, 2009
- Compact Multiband VHF Antenna for Transient Radio Telescope - Proceeding of the 2009 International Conference on Space Science and Communication, Malaysia
- Multiband Antenna for Low-Frequency Radio Telescope. - WSEAS Transactions on Communications (2009)
- Development of a Multiband VHF Antenna for Low-Frequency Transient Radio Telescope. - Journal of Electromagnetics, Waves and Applications (2009)
- Low Frequency Radio Astronomy: A Starting Point to Build Awareness about Radio Astronomy. – USM Astronomy Convention and Expo Universiti Sains Malaysia, Penang, Malaysia (2008)
- Simulation on LC Filter for a VHF Radio Telescope.\_ Usm Astronomy Convention and Expo, Universiti Sains Malaysia, Penang, Malaysia (2008)
- Design and Implementation of a Radio Telescope for Astronomical Observation. - Engineering Postgraduate Conference 200N, (EPC08), Malaysia (2008)
- Development of Antenna for Low-Frequency Radio Telescope. Proceedings of 2008 Student Conference on Research and Development (SCOReD 2008) Malaysia.

## Radial Anwar, Ph.D

**BORN** in Pariaman, West Sumatra, May 24, 1981, Radial Anwar is a lecturer with research interest covering antenna and propagation and radio astronomy instrumentation (engineering), astronomy & astrophysics, observational astronomy, and classical mechanics (applied sciences).

He graduated from Department of Astronomy, Faculty of Mathematics & Natural Sciences, Bandung Institute of Technology (ITB) in 2006. For his master degree, he studied at Department of Electrical, Electronic and System Engineering, National University of Malaysia (UKM) between 2007 and 2011. and his doctoral degree was taken from Space Science Centre, Institute of Climate Change, UKM (2015).

His scientific publications was published both in journals and proceedings. His research grants involvement was occurred around 2009-2015, namely when he studied in Malaysia. ♦

### RESEARCH FIELD

- Covering Antenna and Propagation and Radio Astronomy Instrumentation (Engineering), Astronomy & Astrophysics, Observational Astronomy, and Classical Mechanics (Applied Sciences).

### RESEARCH ACTIVITY

- Development of Multiband Antenna for Radio Telescope in Radio Astronomy Application (2009-2011)
- The Study of Solar Activities for Space Weather Application through Radio Astronomi (2011-2013)
- Development of a Narrow Beamwidth Non- Dish Direction Antenna for Neutral Hydrogen Emission Observation (2012-2013)
- Development of Dipole Base Antenna Array System for Low Frequency Radio Astronomi (2012-2015)





## PUBLICATION

- Adaptive Control Channel Interval in VANET Based on Mobility Model and Queuing Network Analysis - Journal of Networks 2016
- Experiment Evaluation and Analysis of Delay Handover in VoIP on Campus Network - and Track International Journal of Simulation- Systems, Science and Technology 2016
- Performance Evaluation of AODV, DSDV, and ZRP Using Vehicular Traffic Load Balancing Scheme on VANETs - International Journal of Simulation Systems, Science and Technology 2016
- *Implementasi dan Analisa Jaringan Wireless Sensor untuk Monitoring Suhu, Kelembaban dan Kadar CO<sub>2</sub> Pada Ruangan* (Implementation and Analysis of Wireless Sensor Network for Monitoring Temperature, Humidity and CO<sub>2</sub> levels in Room) - Seminar National Innovation and Technology Applications in Industry (Seniati) 2016
- *Analisis Performansi Routing Protocol OLSR dan Aomdv Pada Vehicular Ad Hoc Network* (VANET) (OLSR Routing Protocol Performance Analysis and Aomdv on Vehicular Ad Hoc Network (VANET)) – National Journal Electrical Engineering 2016
- *Analisis Unjuk Kerja Horizontal Handover Mobile Wimax Mendukung Layanan Mobile TV* (Horizontal Handover Performance Analysis of Mobile WiMAX Supports Mobile TV services) - INFOTEL 2016
- *Analisis Keadilan Model Penjadwalan yang Diintegrasikan dengan HARQ Pada Sistem LTE* (The Justice Analysis Model Integrated Scheduling With HARQ on LTE System) - Journal of Research and Development, Telecommunications, Control, Computer, Electrical, and Electronics (TEKTRIKA) 2016
- Message Scheduling on CAN Bus for Ship Engine Systems - Teknika 2016
- Routing VDTN for Delay Enhancement in V2V Clustering Network - CICSyN 2016
- Adaptive Control Channel Interval in VANET Based on Mobility Model and Queuing Network Analysis - Journal of Networks 2016
- Performance Evaluation Gauss-Markov Mobility Model in Vehicular Ad-Hoc Network with Spearman Correlation Coefficient - International Seminar on Intelligent technology and Its Application 2016
- Inter-regional Voice Bandwidth Calculation on IMS Network - IEEE ICCEREC 2016
- Analysis Secure Socket Layer Protocol with Heartbleed Bug and Distributed Denial-of-Service - ICCEREC 2016
- Simulation and Performance Analysis of Routing Protocols FSR and ZRP in Vehicular Ad-Hoc Network (Vanet) - International Journal of Computers & Technology 2016
- A Performance Analysis of Packet Scheduling Algorithms between Homogeneous Algorithm and Hybrid Algorithm in Point to Multipoint WiMAX Networks - International Conference on Information Technology, Information System and Electrical Engineering (ICITISEE) 2016
- Simulation and Analysis of Energy Consumption for SMAC and TMAC Protocols on Wireless Sensor Network - APWIMOB 2015
- Coexistence LTE with GSM and UMTS - Performance Analysis using SEAMCAT Simulation - COMNETSAT 2015

## Dr. Ir. Rendy Munadi. MT

### RESEARCH ACTIVITY

- VOIP Development on Campus (VOC) (2013)
- Development of New Algorithm Variable CCH / Sch Interval Multichannel Mac (VCIMMac) Effect Against Node Mobility in the IEEE Standard 1609.4 (Vanets) (2015)

### INTELLECTUAL PROPERTY

- Book "*Teknik Switching*" - Publisher: Informatika

### ACHIEVEMENT

- BNSP Certification – DIKTI 2010
- Lecture Certification – DIKTI 2009

### RESEARCH FIELD

- VoIP in the Next Generation Network, Network IP/MPLS, Ad-Hoc Networks, Wireless, VANET and Wireless Sensor Network, Quality of Service in IP Networks, Network and NGN, protocol and Interface Circuit and Packet-based Networks/IP, and Traffic Engineering and modeling of Static and Dynamic System.

**BORN** in Cirebon, March 23, 1961, Rendy has research interests are VoIP in the Next Generation Network, Network IP/MPLS, Ad-Hoc Networks, Wireless, VANET and Wireless Sensor Network, Quality of Service in IP Networks, Network and NGN, protocol and Interface Circuit and Packet-based Networks/IP, and Traffic Engineering and modeling of static and dynamic system.

He studied electrical engineering at Bandung Institute of Technology (ITB) both for his undergraduate and master program (1986 and 1997). and for his doctoral degree, Rendy studied Physics Engineering at University of Indonesia (2005). in Telkom Foundation, once he was appointed as the Chairman of BAAK STT Telkom (1997-2000), the Head of Telecommunications Engineering Department (STT Telkom, 2005-2006), Vice Rector 1 of STT Telkom (2006-2010), and the Head of Interested Group of Networks and Multimedia (Tel-U, since 2011). ♦



## Dr. Ir. Rina Pudji Astuti, MT



**RINA** Pudji Astuti is the Dean of School of Electrical Engineering, Telkom University. Born in Ngawi, August 1, 1963, she studied Electrical-Telecommunication Engineering at Sepuluh Nopember Institute of Technology (ITS) Surabaya (bachelor, 1987), Electrical Engineering at Bandung Institute of Technology (ITB, master, 1999), and Electrical and Informatics Engineering at ITB (doctor, 2009).

in Telkom, Rina teaches Terrestrial Radio Planning, Wireless Communication Systems, Advanced Topic in Communication Systems, Pre Thesis, Satellite Communication Systems, Concept for Developing Science and Technology, and Selected Topic in MIMO Systems. Besides, in the last five years, she conducted many activities related to academic activity both done at home and abroad. ♦

### RESEARCH FIELD

- Wireless Communication, Multicarrier, MIMO, Space Time Code, Satellite Com. Systems.

## RESEARCH ACTIVITY

- Full Implementation of Such Adaptive Modulation and Coding and Adaptive Resource Block on Broadband Wireless Technology (2016)
- Design Modeling Space Time Block Code (STBC) and Differential - STBC (DSTBC) in the Case of WCDMA Wireless Communications Cooperative with Single Antenna in Fading Channels Environment (2014)
- Design Modeling WCDMA multiuser with Distributed Space Time Block Code (D-STBC) in the case of Wireless Communications Cooperative in Rayleigh Fading Channel Environment (2013)
- Design and Implementation of STBC-OFDM Systems Based FPGA for WiMAX 802.16e (2012)
- EVDO Signal Performance Analysis in Area Boundary on Frequency 1900 MHz (2010)
- Performance Analysis in Area Boundary EVDO Signal at a frequency of 1900MHz (2010)
- Mimo Adaptive Design System on MC-CDMA Users Plural (2010)

## PUBLICATION

- *Perbandingan Power Spectral Density Sistem OWDM dan OFDM Pada Kanal Rayleigh* (Comparison of Power Spectral Density System Owdm and OFDM on Rayleigh Channel) - Jurnal Elektro dan Telekomunikasi Terapan 2016
- A Combined User-Order and Chunk-Order Algorithm to Minimize the Average BER for Chunk Allocation in SC-FDMA Systems - TELKOMNIKA 2016
- Diversity Maximal Combining for Transparent Protocol with Cooperative Network Coding (CNC) - APWiMOB 2016
- Analysis Effect of Discrete Wavelet Transform in Multi Carrier Code Division Multiple Access - 2016 IEEE Asia Pacific Conference on Wireless and Mobile (APWiMob)
- Finite-Length Analysis for Wireless Super-Dense Networks Exploiting Coded Random Access Over Rayleigh Fading Channels - IEEE Asia Pacific Conference on Wireless and Mobile 2016 (APWiMob)
- MIMO MC-CDMA with Differential Unitary Space Time Frequency Modulation for Fast Fading Environment - IEEE Asia Pacific Conference on Wireless and Mobile 2016 (APWiMob)
- Scaling Technique of Triple Play Services in Passive Optical Network Using Subcarrier Allocation Algorithm - International Conference on Control, Electronics, Renewable Energy, and Communications 2016 (ICCEREC)
- Enhancing Performance of Block Diagonalization Precoding in Multi User MIMO (MU-MIMO) Downlink - International Conference on Information and Communication Technology (ICoICT) 2015
- Distributed FFR as the Novelty Solution of the Integration Femtocell and Macrocell in Cellular Network - IEEE Asia Pacific Conference on Wireless and Mobile (APiWimob 2015)
- Design and Simulation of LTE Radio System for Broadband Wireless Access in Central Phnom Penh - 2015 IEEE Asia Pacific Conference on Wireless and Mobile
- Comparison Performance Analysis of OWDM and OFDM System on Multipath Fading Rayleigh Channel - The 9<sup>th</sup> International Conference on Telecommunication Systems Services and Applications (TSSA 2015)



## PUBLICATION

- *Analisis Tuntutan Pelanggan, Kinerja Bauran Pemasaran Jasa, Nilai Pelanggan dan Penggunaan Jasa Telekomunikasi* (Analysis of the Demands of Customers, Performance of Service Marketing Mix, Customer Value and Use of Telecommunications Services) - Analysis of Telephone Service Marketing Mix & Management Entrepreneurs Magazine Indonesia 2006
- *Analisis Bauran Pemasaran Jasa Telepon dan Pengaruhnya Terhadap Keputusan Pelanggan Residensial Strategic* (Analysis of Telephone Service Marketing Mix and its Effect on Residential Customers Strategic Decisions)– Jurnal Pendidikan Manajemen Bisnis (2002)

## ACHIEVEMENT

- The Top-50 BoD-2 Talents of PT Telekomunikasi Indonesia, Tbk, and Participated in its International Leadership Program at INSEAD, 2014
- 3<sup>rd</sup> Winner for Innovation Entitled "Review Management 247" on the Event of Gelar Inovasi Divisi InfraTEL, 2010
- Distinction Acknowledgement from Telkom's BoD for Being the Best in Kursus Pimpinan (SUSPIM) 135B Angkatan 46, 2007
- Recognition for the Contribution and Active Role on Preparation and Assessment Under Malcolm Baldrige Criteria for Performance Excellence Framework, 2004
- The Best Participant in Individual Contest on The Telkom Way 135 Corporate Culture Actualization, 2003

## Dr. Riza Agung Nugraha Rukmana, MM

**RIZA** Agung Nugraha Rukmana is a lecturer at Management Graduate Program, School of Economics and Business, Tel-U, for the subject of Management, Marketing Management, Strategic Management, Research Methodology since 2011.

Born in Bandung, January 15, 1973, Riza got Bachelor Degree (S1) in Industrial Engineering, STT Telkom Bandung (1995), Master in Management Science – Marketing Management Specialization, Padjadjaran University (1999), and Doctor in Economics Science-Marketing Management Specialization from the same university (2005).

Before lecturing at Tel-U, he had worked PT. Telekomunikasi Indonesia, Tbk from 1996 until 2011. and

now he also works for PT. Telekomunikasi Indonesia International (Telin) as Vice President, Corporate Strategic Planning (since 2013). Fully dedicated works, he was Selected as one of the Top-50 BoD-2 talents of PT. Telekomunikasi Indonesia, Tbk, and participated in its International Leadership Program at INSEAD, 2014. ♦

### RESEARCH FIELD

- Economics Science, Marketing Management Specialization.



## Sigit PW Jarot, MSc., Ph.D



**SIGIT** took PhD, MSc and B.Eng in Mobile and Wireless Communications, from Keio University, Japan. His key qualifications are Telecom regulations, spectrum management, broadband deployment, big-data and OTT issues, etc; Research in 5G, 4G/LTE physical layer, wireless security, lawful interception, and visible light communications.

Between 2000 and 2008, Sigit worked as a research associate at Keio University Japan –4G Research Project as well as the researcher of Nokia Research Center, Japan –4G/LTE 3GPP Standardization. Then he became Assistant Professor at Islamic University Malaysia, Coordinator of Information Assurance Research Group (2008-2012), commissioner at Indonesia Telecommunications Regulatory Authority (BRTI, 2012-2015). Since 2014, he worked as a lecturer at Telkom University and since 2015 he also worked as a Technical Expert at DG-SDPPI (Resource and Standards) MCIT –Indonesia as well as the Chairman of Indonesia 5G Forum (i5GF). ♦

### RESEARCH FIELD

- Telecom Regulations, Spectrum Management, Broadband Deployment, Big-Data and OTT Issues, 4G/LTE Physical Layer, Wireless Security, Lawful Interception, & Visible Light Communications.

## RESEARCH ACTIVITY

- Honey-Bee Program: An Ensemble Computing Environment for the Economic Transformation Program of NKEA Application Domain: Platform Technology for Ensemble Computing Environment (2014)
- Deciphering the WikiLeaks Saga: Exploring the Legal, Policy and Information Security Role and Challenges in Protecting and Securing Malaysia's Critical Information Infrastructure (CII) against Data Leak (2013)
- Novel Algorithms on Speech and Audio Coding based on Compressive Sensing Principle (2013)
- Cooperative Interference and Detection for Cognitive Radio Networks (2013)
- Study on Security Enhancement of IPv6 Address Management in Enterprise WLAN (2012)

## PUBLICATION

- An Efficient Implementation of Sequential Detector in Spectrum Sensing Under Correlated Observations - IColCT 2015
- Over-the-Top (OTT): A Regulator's Perspective - APEC-TEL 51 (2015)
- *Arah Regulasi Telekomunikasi Nasional di Era Masyarakat Ekonomi ASEAN 2015* (Directions National Telecommunications Regulation in the Age of the ASEAN Economic Community in 2015)- Symposium Telekomunikasi Nasional (2014)
- *Peran Regulasi Telekomunikasi*

- dalam Memajukan Pembangunan Masyarakat Indonesia* (Telecommunications Regulatory Role in Promoting Community Development Indonesia)- Seminar IT Festival UAI (2014)
- A Regulatory Perspective of ICT Developments in Indonesia - International Conference on IT for Cyber an IT Service Management (2014)
- Over-the-Top (OTT): A Regulator's Perspective - APEC-TEL 47 (2012)
- Randomness Test of Cryptographic

## INTELLECTUAL PROPERTY

- Book "Topics in Coding, Cryptography and Information Security" (2011)

## EXPERTISE EXPERIENCE

- The Concept of Personal Data Protection Supervisory Authority - Public Consultation on Personal Data Protection Bill (2016)
- Activating 5G Research in Indonesia - The 1<sup>st</sup> Indonesia-Japan Forum on 5G and Connectivity (2015)
- Strategy Toward 5G in Indonesia - Indonesia ICT (2015)
- Landscape Broadcasting Industry in

- Future: A Perspective Academics - FGD Broadcasting Toward Digital Era (2015)
- Interception in the Bill Setting Procedure Interception - KPK (2015)
- Interception ISP: Standards and Regulations- KPK (2015)
- Policy Framework on Social Media Utilization - ITU-ASEAN Forum on Social Media (2014)
- Monitoring Implementation of

- One-to-Many Reversible Mapping for IPv6 Address Generation - JATIT Journal (2014)
- Analysis of P2P Communication over Various Mobile Platforms - Australian Journal of Basic and Applied Sciences (2013)
- Data leak, critical information infrastructure and the legal options: what does WikiLeaks teach us? - International Journal of Cyber-Security and Digital Forensics (IJCSDF) (2012)
- Personal Data Protection in the Telecommunications Sector - Workshop on Personal Data Protection Bill (2014)
- KR-ITRB Role in the Guidance Telekomunikasi Indonesia - Legal Advocacy Workshop DJSPPI (2014)
- Over-the-Top (OTT) Business: Technology Aspect - International Roundtable Discussion, Mastel (2013)



## Sigit Yuwono, ST, MSc, PhD.



**SIGIT** Yuwono, born in Palembang, March 22, 1974, has research interests in analog electronics, Designing circuits negative and positive feedback (oscillator), Ultra-wide band impulse radar (UWB-IR), digital electronics, digital frequency synthesizer, and CMOS IC Design.

Graduated from Electrical Engineering at Bandung Institute of Technology (ITB) for undergraduate program (1998), Sigit continued his master program at Delft University of Technology with the same department (2003) and his doctoral program at Korea Advanced Institute of Science and Technology (KAIST) which finished in 2014.

With several achievement and fellowships, Sigit served as the Head of Master Degree Studio of Electrical Engineering (STT Telkom, 2005-2007) and the Head of Undergraduate of Electrical Engineering (Telkom University, since 2014). ♦

### RESEARCH FIELD

- Analog Electronics, Designing Circuits Negative and Positive Feedback (Oscillator), Ultra-Wide Band Impulse Radar (UWB-IR), Digital Electronics, Digital Frequency Synthesizer, and CMOS IC Design.

## RESEARCH ACTIVITY

- *Wireless Charging System untuk Kendaraan Otomatis* (Automated Guidance Vehicle) (2015)
- Analogue multiplier for UWB-IR application 2014
- Frequency synthesizer for FPGA 2012

## ACHIEVEMENT

- Doctoral Scholarship IITA - The South Korean Government (2008-2012)
- Pre-Doctoral Research Scholarship Monbuka gakusho – Japan Government (2007-2008)
- Master Scholarship STUNED – Netherland Government (2001-2003)

## PUBLICATION

- Development of Low-Complexity All-Digital Frequency Locked Loop as 500 MHz Reference Clock Generator for Field-Programmable Gate Array - IET Circuits, Devices & Systems (2014)
- Auto Audio Line Multiplexer: From Need to Prototype - Jurnal Telekomunikasi (2005)
- A Low-Noise Low-Power Second-Order Compensated CMOS Bandgap Reference – Jurnal Telekomunikasi (2004)
- A Low-Power UWB Radar Transceiver with Fast Switching Wideband LNA for Short-Range Detection – APMC (2014)
- A 520 pJ/pulse UWB-IR for Short Range Object Detection - IEEE RFIC (2011)
- Current-Reused Single-Ended Current-Output Multiplier as a Core Circuit in a UWB Pulse Detector – ICACT (2011)
- A 900-mV Area Efficient Source-Degenerated CMOS Four-quadrant Multiplier with 10.6-GHz Bandwidth – WICOM (2009)
- Current-Reused Low-Power Four-Quadrant Multiplier with Single-Ended Current Output - IEEE ISCAS (2009)
- Highly Linear CMOS Low Noise Amplifier with IIP3 Boosting Technique – ISOC (2008)

## Dr. Sony Sumaryo



**SONY** Sumaryo, born in Bojonegoro, December 09, 1967, is a lecturer of Telkom Foundation. Graduated from Electrical Engineering at Bandung Institute of Technology (ITB) and continuing post-graduate program at the same college. ♦

### RESEARCH FIELD

- Electronics, Robotics, Microcontroller.

### RESEARCH ACTIVITY

- Pembuatan Programmable Logic Controller (PLC) Berskala Mikro PLC Berbasis Embedded System (2013)
- Interfacing a Micro Controller AVR ATmega8535 Using Google Maps with a Mobile GPS Tracker (2009)

## PUBLICATION

- *Perancangan Perangkat Host USB untuk Menyalin Data Antar Flash Disk dengan Spesifikasi USB 1.0* (The Design of the Host Device USB to Copied Between Flash Disk with USB 1.0 Specification) - Seminar Nasional Informatika (SEMNASIF) 2015
- Operating System Design for Micro PLC Based on ARM Cortex 3 2012
- *Perancangan dan Implementasi Prosesor OFDM Baseband untuk Prototipe Modem PLC pada FPGA* (Design and Implementation of OFDM Baseband Processor for review Prototype PLC Modem ON FPGA) - IT Telkom, Bandung 2010
- *Analisa Performansi Mekanisme Bandwidth Request-grant dalam Jaringan WiMAX* (Performance Analysis of Bandwidth Demand-grant MECHANISM hearts WiMAX Networks) - Bandung, Agustus 2009
- *Desain dan Implementasi Kontrol PID Pada Lengan Robot Dua Derajat Kebebasan* (Design and Implementation of Control PID ON Two Degrees of Freedom Robotic Arm)
- *Desain DAM Implementasi Modul Torsimeter dengan Menggunakan Motor AC Berbasis Mikrokontroler AT89S51* (DAM Design Implementation Module Torsimeter Article Search Google using AC Motors Based Microcontroller AT89S51)
- *Rancang Bangun Sistem Transfer Energi Listrik Tanpa Kabel* (Design Prototype Wireless Electrical Energy Transfer System)
- *Analisis Modifikasi Algoritma Spin dengan Penambahan VC Table di Tiny OS* (Analysis Algorithm Modifications Spin Article Search Google Disposals VC Table at Tiny OS)
- *Aplikasi Antarmuka Mikrokontroler AT89s51 Sebagai Pensaklar Jarak Jauh Melalui Teknologi Internet* (Internet Application Interface Microcontroller AT89S51 as Switcher Distance Learning through Technology)
- *Perancangan dan Implementasi Electromyograph dengan Menggunakan Mikrokontroler Atmega* (Design and Implementation electromyography Article Search Google using Microcontroller Atmega)
- *Pengontrol Winamp Melalui Port Serial* (Winamp controller through Serial Port)
- *Perancangan dan Implementasi Kriptografi Skipjack untuk Komunikasi Suara Melalui Saluran Telpon Berbasis Mikrokontroler* (Design and Implementation of Cryptographic Skipjack for Channel Voice Communication Through Telephone-Based Microcontroller)



## Dr. Sri Martini



**BORN** in Solo, June 20, 1959, Sri Martini graduated from Industrial Engineering Department of Faculty of Engineering, Pasundan University (1987). Her master degree was taken from Transportation Department, Bandung Institute of Technology (ITB), in 1995. and she gained her doctoral degree at Indonesia University of Education (UPI) Bandung.

Since 1985, prior to joining Telkom, Sri once worked as a staff of research and promotion for PT Margahayu Raya Bandung, an engineering coordinator of CV Delti Tangerang (1988), a short term expert for Perkumpulan untuk Peningkatan Usaha Kecil (PUPUK) Bandung (1997-2010), and a secretary of STISI Bandung's P3M (1997-2000). Her teaching experiences, among others, included in SMA Lembaga Nasional Bandung (1986), STISI Bandung (1990-2010), STISI Telkom (since 2011), and TCIS (since 2013). ♦

### RESEARCH FIELD

- Industrial design

### INTELLECTUAL PROPERTY

- Copyright "*Analisis Konsep Pengembangan Model Pembelajaran Berbasis Industri Kreatif*"
- Copyright "*Seni Motif Batik "Kuas Beken"*"

## RESEARCH ACTIVITY

- Feasibility Analysis of Waste Utilization Grass Green and Organic Waste Land Telkom University Using Biogas Processing Facility (2015)
- Development of Creative Learning Model-Based Innovative Creative Industries (2013)
- Waste Utilization Model-Based Products Fabrics for Creative Industries in Desa Suka Mulya Soreang Bandung District (2013)
- Learning Facilities Development Model on. Product Design Study Program STISI Telkom Using Analytical Hierarchy Process (2012)
- Model Strengthening Small Industrial Garment in Effort Supports Creative Industries in Desa Suka Mulya Soreang Bandung District (2012)
- Study Meaning Kitchen Equipment in Houses Made Room for the Supporters (2008)
- Multi Criteria Analysis to Determine Performance Education Facilities (2007)
- Diagnosis Cluster Textiles and Textile Products South Bandung (2005).
- Potential Study and Capacity of Microfinance Institutions in Purwakarta and Bandung (2003)
- Business Feasibility Study Trucking Sector (2003)
- Business Feasibility Study Bus Transport Sector (2003)
- Business Feasibility Study Taxi Transport Sector (2002)
- Feasibility Study of Public Transport Sector (2002)
- Performance Ports in Papua for Level Determination Regarding Port Expansion Plan of the Province (2001)

## PUBLICATION

- *Model Penguatan Industri Kecil Dalam Menghadapi Perkembangan Industri Kreatif* (Model Strengthening Small Industry Development Facing Creative Industries) - Jurnal "Seni Rupa & Desain", STISI Telkom, 2012
- *Manajemen Kantor Sebagai Pendukung Utama Industri Telekomunikasi* (Top Management Support Office as the Telecommunications Industry) - Jurnal "Civil Society" STISIP, Sukabumi, 2012
- *Tinjauan Makna Prasarana dan Pelengkap Dapur Jurnal Ilmiah Seni & Budaya Bagi Penghuni Rumah Panggung Desa Cinangela, Kampung Legok Kaso, Kecamatan Pacet, Kabupaten Bandung* (Meaning Overview Infrastructure and Supplementary Kitchen Science Journal Arts & Culture for Occupants House Stage Cinangela village, Kampung Legok Kaso, Pacet sub district, Bandung district) - "Panggung", STSI, Bandung, 2011
- *Penerapan Model Pembelajaran Keterampilan untuk Pembuatan Generator Sel Surya Berbasis Pengabdian Pada Masyarakat* (Application of Learning Model Generator Skills for Producing Solar Cells Based on Community Service) - International Conference on Physics and 1<sup>st</sup> Applications (ICPAP) & The 24 National Physics Symposium (Simposium Fisika Nasional XXIV), ITB, Bandung, 2011
- *Model Simulasi Pada Manajemen untuk Penentuan Jalur Distribusi Optimal dalam Membantu Penanganan Logistik Komoditi Perkebunan Berdasarkan Kriteria Biaya* (Simulation Model Management for Determining Optimal Distribution Line in Plantation Commodities Helps Logistics Management Fees Based Criteria) - Majalah Keilmuan dan Teknologi Terapan "Spectrum", Uninus, Bandung, 2011

## Drs. Tatang Mulyana, MT, Ph.D



**BORN** in Bandung, April 21, 1962, Tatang Mulyana teaches Industrial Automation, Industrial Electronics, Quality Control and Guarantee, Concept for Developing Science and Technology. He studied Physics at Padjadjaran University (bachelor, 1987), Nuclear Science and Engineering at Bandung Institute of Technology (master, 1996), and Kejuruteraan Elektrik or Electrical Engineering at UTHM (doctor, 2015). in the last five years, Tatang conducted researches and community development activities, and wrote papers for journals as well as for speeches both at home and abroad. ♦

### RESEARCH FIELD

■ Otomation

## RESEARCH ACTIVITY

- Design and Realization of Hybrid Power Systems Empower Low (2016)
- Design and Realization of Power Filter Based on Electromagnetic Compatibility (EMC) (2016)
- Development of Intelligent Identification Algorithm for Nonlinear Systems (2013)

## ACHIEVEMENT

- Presentation Panel in FKEE Industrial Experience Symposium 2009 (FIES'09) - UTHM - Malaysia
- Participated in the Research & Innovation Compete 2011 - UTHM Malaysia
- Anugerah Pengajaran & Pembelajaran Cemerlang 2013 - UTHM Malaysia
- As Session Chair in ICoICT 2015 – the 3<sup>rd</sup> International Conference on Information and Communication Technology - ICoICT 2015 Universitas Telkom
- As Keynote Speaker in ICVEE 2015 – 1<sup>st</sup> International Conference on Vocational Education and Electrical Engineering - ICVEE 2015 Universitas Negeri Surabaya (UNESA)

## PUBLICATION

- Data Analysis using System Identification Toolbox of Heat Exchanger Process Control Training System - ICoICT 2016
- A Nonparametric System Identification Based on Transient Analysis With Plant Process of Heat Exchanger As Study Case - International Journal of Innovation in Mechanical Engineering & Advanced Materials (IJIMEAM) 2016
- A Maintenance Task Optimization of the BTS using RCM and LCC Methods - Internet working Indonesia Journal 2016
- Data Analysis of Li-Ion and Lead Acid Batteries Discharge Parameters with Simulink-MATLAB - ICoICT 2016
- Design Selection of in-UVAT Using MATLAB Fuzzy Logic Toolbox - The Second International Conference on Soft Computing and Data Mining (SCDM-2016)
- Automation System Design of Stopper Valve Chamfering Process on Bench Lathe SD-32A Machine Using User Requirement Specification - International Conference of Logistic and Supply Chain Management System 2016
- NNARX Model Structure for the Purposes of Controller Design and Optimization of Heat Exchanger Process Control Training System Operation - 7<sup>th</sup> International Conference on Mechanical and Manufacturing Engineering (ICME 2016)
- An Automated Guided Vehicle Simulation through Robotino To Help Learning Course Industrial Automation - International Seminar on Industrial Engineering & Management (ISIEM) 2016
- Parametric Model of Laboratory Heat Exchanger - International Conference on Vocational Education and Electrical Engineering (ICVEE) 2015
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#### RESEARCH ACTIVITY

- Management Resources in Cyber security (2016)
- Algorithm for Calculating Metaheuristic Security Metrics Network (2015)
- Development Attack Graph Based Security Metrics untuk Mengevaluasi Security Network (2014)
- Transaction System through Mobile Web-Commerce with NFC smartcards. (2011)
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**BORN** in Purwokerto, November 7, 1973, Tito is a lecturer of Telkom University since 2014. His research interests are Network Security, Cryptography, Mathematical Modeling, Image Processing, and Simulation. His whole higher education was taken at Bandung Institute of Technology (ITB) with the different department. For his undergraduate studies he took Physics (1998), then mathematics (master program, 2009), and electrical and informatics engineering (doctoral program). in Telkom, Tito teaches Multimedia System, KPST, Physics I & II, Calculus I & II, Probability & Statistics, and the Proposal for Final Projects. ♦

#### RESEARCH FIELD

- Network Security, Cryptography, Mathematical Modelling, Image Processing, and Simulation

