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EDUCATION

- The University of Manchester, Manchester, United Kingdom
Doctor of Philosophy in Electrical and Electronic Engineering (September 2009 - August 2014)
- The University of Manchester, Manchester, United Kingdom
Master of Science in Communication Engineering (September 2004 - September 2005)
- Bandung Institute of Technology (ITB), Bandung, Indonesia
Bachelor of Science in Electronic Engineering (September 1995 - July 2000)

WORK EXPERIENCE

- Full-time Lecturer at Department of Electrical and Electronic Engineering, University of Sumatera Utara (August 2008 - now)
- Part-time Lecturer at the University of Sumatera Utara (August 2006 – July 2008)
- I.T. Staff at PT SAKARNAS, Kabanjahe, North Sumatera, Indonesia (July 2000 - September 2004)

RESEARCH AND TRAINING EXPERIENCES

- Diamond Light Source Laboratory, Oxford, UK (19/11/2011)
- Graduate Teaching Assistant (29/11/2010)
- Doctoral Training Centre Nano Science Summer School (24-25/06/2010)
- Agilent Microwave Laboratory, Manchester, United Kingdom (June 2005 - September 2005)
- Image Processing Research Group (IPRG) Laboratory, Bandung, Indonesia (January 2000 - June 2000)
- Image Processing Research Group (IPRG) Laboratory, Bandung, Indonesia (September 1999 - December 1999)
- PT Indosat Medan, North Sumatra, Indonesia (June 1999 - August 1999)

PUBLICATIONS

- **Emerson P. Sinulingga**, Ali A. Rezazadeh, Peter B. Kyabaggu, "3D Momentum

Modeling Technique and Measurements of CPW Compact GaAs Multilayer MMICs,” Asia Pacific Microwave Conference Proceeding, 2015.

- Peter B. Kyabaggu, N. Haris, A. A. Rezazadeh, **E. Sinulingga**, M. A. Alim, Y. Zhang, “*Design and realisation of a pHEMT diode MMIC power limiter using 3D GaAs multilayer CPW technology,*” in IEEEExplore, 2015.
- **Emerson P. Sinulingga**, Peter B. Kyabaggu, Ali A. Rezazadeh, “*A Sub-THz Parameter Extraction of Low Loss 3D Compact Multilayer MMIC Coplanar Waveguides,*” The UK Semiconductor Conference Proceeding, 2014.
- M. A. Alim, A. A. Rezazadeh, M. M. Ali, **E. P. Sinulingga**, P. B. Kyabaggu, Y. Zhang, C. Gaquiere, “*Thermal Characterization of AlGaN/GaN HEMTs on Silicon Carbide Substrate for High Frequency Application,*” IEEEExplore, 2014.
- Y. Zhang, A. A. Rezazadeh, H. A. Khan, **E. P. Sinulingga**, P. B. Kyabaggu, M. A. Alim, “*Simulation and Analysis of InGaP/GaAs DHPTs using Eye Diagrams for Short Wavelength Optical Detection,*” IEEEExplore, 2014.
- **E. P. Sinulingga**, A. A. Rezazadeh, L. Zhang, A. Song, “*Characterization of Integrated CPW Nano-Scale Devices for sub-THz Applications,*” The University of Manchester Postgraduate Summer Research Showcase, 2014.
- P. B. Kyabaggu, **E. P. Sinulingga**, N. Harris and A. A. Rezazadeh, “*Design and Realisation of 3D Multilayer Components for Compact MMIC Applications,*” The University of Manchester Postgraduate Summer Research Showcase, 2014.
- **E. P. Sinulingga**, P. Kyabaggu, and A. A. Rezazadeh, “*Dispersion Characteristics and Loss Analysis of Low-Impedance 3D Interconnects for Compact MMIC,*” The UK Semiconductor Conference, 2011.
- P. B. K. Kyabaggu, **E. P. Sinulingga**, M. M. Ali, Q. Sun and A. A. Rezazadeh, “*Wideband 3D Coplanar Waveguide to Thin-Film Microstrip Transition in Multilayer Technology,*”, The European Microwave Integrated Circuits Conference, 2011 IEEE 6th, pp. 1165 - 1168, 2011.
- M. Mohammed-Ali, P. Kyabaggu, **E. P Sinulingga** and A. A. Rezazadeh “*Nonlinearity Study of Double and Single Channel GaAs HEMTs,*”, The European Microwave Integrated Circuits Conference, 2011 IEEE 6th, pp. 362 - 365, 2011.
- **E. P. Sinulingga**, A. A. Rezazadeh, “*Characterizations and Modelling of 3D Multilayer Microwave Components for Compact MMIC Applications,*”, in the EEE Postgraduate Conference, The University of Manchester, 2010.

- **E. P. Sinulingga**, “*Investigation of Spectral Response of the Optical Photodetectors*”, School of Electrical and Electronic Engineering, the University of Manchester, United Kingdom, September 2005.
- **E. P. Sinulingga**, “*Statistical Approach on Image Texture Analysis using Minimum Distance Method. Case Study: Textile Classification Quality Inspection*”, Department of Electrical and Electronic Engineering, Bandung Institute of Technology (ITB), Indonesia, June 2000.
- **E. P. Sinulingga**, “*Wavelet Transformation on the Image Texture Characteristics Extraction Process*” Image Processing Research Group (IPRG), Department of Electrical and Electronic Engineering, Bandung Institute of Technology (ITB), Indonesia, December 1999.
- **E. P. Sinulingga**, “*Synchronization Principle and the Use of Central Clock Generator Module in Indonesia Digital Telephone Central PT. Indosat*”, PT Indosat, Medan, Indonesia, August 1999

SEMINARS AND CONFERENCES

- The Asia Pacific Microwave Conference 2015, Nanjing – China.
- The European Microwave Conference 2014, Rome – Italy.
- The University of Manchester Postgraduate Summer Research Showcase, 2014.
- The University of Manchester IEEE ED Mini Colloquium, Manchester - UK (16/10/2013).
- Nanocrystal embedded MOS non-volatile memory devices - IEEE EDS Distinguished Lecturer Talk by Prof. C.K. Sarkan Jadavpur University, India (19/03/2012).
- Metamaterial Applications - IEEE The University of Manchester Student Branch Invited Talk, Manchester - UK (14/10/2011).
- The European Microwave Week Conference, Manchester, UK (09th - 14th October 2011).
- Seminar on Wideband 3D Coplanar Waveguides - IEEE The University of Manchester Student Branch Seminar, Manchester - UK (06/10/2011).

- Skin Effect Suppression in Multilayer Thin-Film Spiral Inductor Taking Advantage of Negative Permeability of Magnetic Film - IEEE The University of Manchester Student Branch Invited Talk, Manchester - UK (09/12/2010).
- Microwave performances comparison of InAlN/GaN and AlGaN/GaN HEMTs - IEEE The University of Manchester Student Branch Invited Talk, Manchester - UK (20/12/2010).
- Eye WiMax Seminar - IEEE The University of Manchester Student Branch Invited Talk, Manchester - UK (18/12/2009).
- An Overview of WIN Semiconductors - a 150mm Pure-Play GaAs Foundry- IEEE The University of Manchester Student Branch Invited Talk, Manchester - UK (07/05/2010).
- Microwave Fibre-Optic Links - Design and Measurement Issues - IEEE The University of Manchester Student Branch Invited Talk, Manchester - UK (18/06/2010).
- The University of Manchester Nano Summer Postgraduate School, Bolton – UK (2010).

SCHOLARSHIP/GRANT/AWARD

- Travel Grant amount of € 1,000.00, IEEE European Microwave Chair Branch Meeting, Rome, Italy (05-09/10/2014).
- Graduate Researcher Grant amount of £ 500.00, The University of Manchester (08/10/2013).
- Travel Grant amount of £ 500.00, IEEE Region 8 Chair Branch Meeting, Madrid, Spain (25-29/07/2012).
- Higher Education Republic of Indonesia (DIKTI) Doctoral Scholarship (2009-2014).