

UNIVERSITI TUN HUSSEIN ONN MALAYSIA
FACULTY OF ELECTRICAL AND ELECTRONIC ENGINEERING
DEPARTMENT OF ELECTRICAL ENGINEERING

Curriculum Vitae

1. Name	DR. WAHYU MULYO UTOMO
2. Position	Senior Lecturer
3. Department	Department of Electric Power Engineering (JEK)
4. Academic Qualifications	<ol style="list-style-type: none"> 1. Philosophy Doctorate (PhD. in Power Eng.), UTM - Malaysia, 2007 2. Master of Electrical Engineering (M.Eng), ITS - Indonesia, 2002 3. Bachelor of Electrical Engineering (B.Eng), UNIBRAW - Indonesia, 1993
5. Research Interest	Power Electronics and Electric Motor Drives.
6. Professional Affiliations	<ol style="list-style-type: none"> 1. Reviewer Member of IEEE Industrial Electronics Society. 2. Reviewer Member of Control Engineering Practice Journal. 3. Partner of the DC House Project Electrical Engineering Department, California Polytechnic, USA.
7. Professional Activities	<ol style="list-style-type: none"> 1. Paper reviewer for Journals & Proceedings: <ul style="list-style-type: none"> - Control Engineering Practice " H Fuzzy Control of DC-DC Converters With Input Constraint", January, 2012. - IEEE Transactions on Industrial Electronics , "Design and Implementation of a Takagi-Sugeno Fuzzy Speed Regulator for a Permanent Magnet Synchronous Motor", March, 2011. - International Conference on Advanced Science, Engineering and Information Technology, Kuala Lumpur, January 2011 - IEEE International Symposium on Industrial Electronics, Cambridge, UK June 2008 - IEEE International Conference on Industrial Technology, China April 2008

	<ul style="list-style-type: none"> - International Workshop and Seminar on Intelligence Control Application, Universitas Widyagama Malang-Indonesia, 2008. - IEEE International Electric Machines & Drives Conference, Turkey 2007. <p>2. Editor :</p> <ul style="list-style-type: none"> - Guest Editor of "Jurnal Penelitian dan Kajian Teknik Elektro" Department of Electrical Engineering, Faculty of Engineering, Universitas Sriwijaya, South Sumatera, Indonesia, 2008. - Editor of Widya Teknika – Engineering Journal, Universitas Widyagama Malang University, Indonesia, 2005-2008. <p>3. Conducted Workshop For Energy Conversion Laboratory-UTM, "DSP Control Desk DS1102 Programming". May, 2007, FKE-UTM, Johor Bahru.</p> <p>4. Conducted Workshop For "Intelligence Control Application", Universitas Widyagama Malang-Indonesia, 2008.</p>
<p>8. Seminar, Workshops, Short Courses and Conferences Attended</p>	<ol style="list-style-type: none"> 1. Workshop – "Solar Energy Training System", organised by Siscom Automasi Technology Solution, Makmal Pemacu Mesin Elektrik, UTHM, 27 – 29 January 2010. 2. Seminar – "Graduate Staff Supervision", organized by Centre for Graduate Studies, UTHM, at Lecture Hall 3, UTHM, 25 March and 10 August 2010. 3. The First International Power and Energy Conference (PECon 2006), Kuala Lumpur, Malaysia, Nov. 28 – 29, 2006. 4. The Sixth International Conference on Power Electronics and Drive Systems (PEDS 2005), Kuala Lumpur, Malaysia, Nov.28 - Dec.1, 2005. 5. The Conference on Advances in Fuel Cell Research and Development in Malaysia 2004. Malaka, Malaysia. Dec. 3-5, 2004. 6. The Second National Power and Energy Conference (PECon) 2004. Kuala Lumpur, Malaysia. Nov. 29 - 30, 2004. 7. Malaysia-Japan Seminar on Artificial Intelligence Applications in Industry, AIAI 2003, Kuala Lumpur 24th 25th June 2003
<p>9. Publications</p>	<p><u>Journal Papers</u></p> <ol style="list-style-type: none"> 1. <u>W.M. Utomo</u>, S.S. Yi, Y.M.Y Buswig, Z.A. Haron, A. A. Bakar and M. Z. Ahmad, " Voltage Tracking of a DC-DC Flyback Converter Using Neural Network Control", International Journal of Power Electronics and Drive System (IJPEDS), Vol.2, No.1, March 2012. 2. <u>W.M. Utomo</u>, Z.A. Haron, A. A. Bakar, M. Z. Ahmad

and Taufik, "Voltage Tracking of a DC-DC Buck-Boost Converter Using Neural Network Control", International Journal of Computer Technology and Electronics Engineering, Volume 1, Issue 3, December 2011.

3. **W.M. Utomo**, Development of a First Order Harmonic Filter For Rectifier Load. Journal Widya Teknika, Universitas Widyagama Malang-Indonesia, Vol 13. March 2006.

Conference Papers

1. A.B. Afarulrazi, L.K. Leong, **W.M. Utomo** and M. Zarafi (2011), "Solar Tracker Robot using Microcontroller", International Conference on Business, Engineering and Industrial Applications (ICBEIA2011), June 5-7, 2011, Kuala Lumpur, Malaysia.
2. **W.M. Utomo**, Afarulrazi Abu Bakar, Md Zarafi Ahmad, Rudi Heriansyah, and Taufik (2011), "Online Learning Neural Network Control of a DC-DC Buck-Boost Converter", The International Conference on Information Technology - New Generations (ITNG), April 11-13, 2011, Las Vegas, Nevada, USA.
3. Afarulrazi Abu Bakar, Md Zarafi Ahmad and **W.M. Utomo** (2010) , "Design of Unipolar SPWM for Full Bridge Inverter Using FPGA Single Phase Inverter", Malaysian Technical Universities Conference on Engineering and Technology (MUCET 2010), Bayview Hotel, Melaka, 28-29 June 2010. - poster presentation.
4. Afarulrazi Abu Bakar, Liew Kah Leong, Md Zarafi Ahmad and **W.M. Utomo** (2010), " Solar Tracker Using Microcontroller", IEEE Symposium on Industrial Electronics & Applications (ISIEA 2010), Park Royal, Penang, Malaysia, 3-6 October 2010
5. **Utomo, W.M** (2008), Speed Control of an Induction Motor Control Using Neural Network. Proceeding on International Seminar on Intelligent Control Application, Malang, Indonesia, November 25, 2008.
6. Mohd Yatim. A.H. and **Utomo, W.M** (2007), Neural Network Efficiency Optimization Control of A Variable Speed Compressor Motor Drive. IEEE Proceeding on International Electric Machines & Drives Conference (IEMDC 2007), Antalya, Turkey, May 3-5, 2007.
7. Mohd Yatim. A.H. and **Utomo, W.M** (2006), Efficiency Optimization of Variable Speed Induction Motor Drive Using Online Backpropagation. Proceeding on the First International Power and Energy Conference (PECon 2006), Kuala Lumpur, Malaysia, Nov. 28 – 29, 2006.
8. Mohd Yatim. A.H. and **Utomo, W.M**. (2005), Neuro Fuzzy On-Line Optimal Energy Control Variable speed compressor motor drive system. Proceeding on the Sixth International Conference on Power Electronics and Drive Systems (PEDS 2005), Kuala Lumpur,

	<p>Malaysia, Nov.28 - Dec.1, 2005.</p> <p>9. Mohd Yatim. A.H. and Utomo, W.M (2004). Development of An Efficient Variable Speed Compressor Motor System. Proceeding on Advances in Fuel Cell Research and Development in Malaysia 2004. Malaka, Malaysia. Dec. 3-5, 2004.</p> <p>10. Mohd Yatim. A.H. and Utomo, W.M (2004). On Line Optimal Control of Variable Speed Compressor Motor Drive System Using Neural Control Model. Proceeding on the Second National Power and Energy Conference (PECon) 2004. Kuala Lumpur, Malaysia. Nov. 29 - 30, 2004.</p> <p>11. Mohd Yatim. A.H. and Utomo, W.M (2003). Efficiency Optimization of Induction Motor Drive for Air Conditioning Compressor Load Using Neural Network. Proceeding on Artificial Intelligent Application in Industry Conference (AIAI 2003). Kuala Lumpur, Malaysia. Jun. 24-25, 2004.</p> <p><u>Thesis</u></p> <p>[1] Ph.D Thesis <i>Development Of An Efficiency Optimization of A Variable Speed Compressor Motor Drive System.</i></p> <p>[2] M. Eng Thesis <i>Speed Control of A three-Phase Induction Machines Using Adaptive Neuro-Fuzzy.</i></p> <p>[3] B. Eng Thesis <i>Analysis of a bus-duct electrical system at a Hospital Building.</i></p> <p><u>Training/Teaching Module</u></p> <p>1. Artificial Intelligence Control (Widya Gama Malang 2008).</p> <p>2. DSP Control Desk DS1102 Programming (UTM, 2007).</p>
<p>10. Current research projects</p>	<p>1. Development of an Optimum DC Converter for Hybrid Wind Generator and Solar Cell, Power Electronic Laboratory (On-going).</p> <p>2. Optimization of an Induction Motor Drive for Electric Vehicle, Power Electronic Laboratory (On-going).</p> <p>3. Efficiency Optimization of a PMSM Drives System, Power Electronic Laboratory (On-going).</p>
<p>11. Consultancies</p>	<p>1. Development of Efficiency Optimisation for Electric Building, Selowodjo Engineering Consultant, 2008.</p>

	<ol style="list-style-type: none"> 2. Development of Solar Power System for Industries, Selowodjo Engineering Consultant, 2008. 3. Testing of a Train Air Conditioning System, Compressor Lab. FKM-UTM and Sutera Teknik Kuala Lumpur, 2005
12. Awards	<ol style="list-style-type: none"> 1. Staf Akademik Cemerlang, FKEE UTHM, July 2009. 2. Staf Akademik Cemerlang, FKEE UTHM, October 2010.
13. Professional Experiences	<ol style="list-style-type: none"> 1. Lecturer, Widya Gama Malang, 1994-2008. 2. Electrical Engineer Consultant, Selowodjo Engineering, 2007-2008. 3. Senior Lecturer, UTHM, 2009 – present.
14. Post-Graduate Supervisions	<p><u>PhD</u></p> <ol style="list-style-type: none"> 4. Yonis M Yonis “Development of an Optimum DC Converter for Hybrid Wind Generator and Solar Cell.” (On-going) (Main supervisor). 5. Sim Sy Yi “Optimization of a DTC Induction Motor Drive for Electric Vehicle.” (On-going) (Main supervisor) <p><u>Master</u></p> <ol style="list-style-type: none"> 1. Mohd Azri Akhiak “Development of Rotary Crane System Controller Using Fuzzy Logic Controller” (Graduated-2012) (Main supervisor). 2. Voravit Nai Chian “Meat Color Recognition Using Machine Vision” (Graduated-2012) (Main supervisor). 3. Raja Siti Nur Adiimah Bt Raja Aris “Development of a Variable Speed Brushless DC Motor Using Neural Network Control” (Graduated-2011) (Main supervisor). 4. Yonis M Yonis “Development of a DC-AC Power Conditioner for Wind Generator Using Neural Network Control” (Graduated-2011) (Main supervisor). 5. Fathi Shaban Jaber “Development of a DC-DC Converter for DC Motor Using Fuzzy Logic Controller” (Graduated-2011) (Main supervisor). 6. Faisel Mohamed Jelwal “Development of a DC-AC Power Conditioner for Wind Generator Using Fuzzy Logic Control” (Graduated-2011) (Main supervisor). 7. Saleh Faraj Mansour Sulaiman “Development Autonomous Mobile Robot Cooperation” (Graduated-2011) (Main supervisor). 8. Elia Nadira Bt Sabudin “Development of Position Tracking of BLDC Motor Using Adaptive Fuzzy Control” (On-Going) (Main supervisor). 9. Mohamad Adhar bin Mohamad Narsardin, “DC Voltage Tracking of Buck Converter Using Neural Network

	<p>Control”, (On-Going) (Main supervisor).</p> <p>10. Siti Hasmah Binti Jamali, “ DC Voltage Tracking of Boost Converter Using Fuzzy Logic Control, (On-Going) (Main supervisor).</p> <p>11. Mohamed Noor Azman Bin Bidin,” DC Voltage Tracking of Cuk Converter Using Neural Network Control”, (On-Going) (Main supervisor).</p> <p>12. Gadaffi Bin Omar,” DC Voltage Tracking of Buck-Boost Converter Using Fuzzy Logic Control”, (On-Going) (Main supervisor).</p> <p>13. Ezuwien Aida Bt Bohari “Efficiency Optimization of a Vector Control for induction Motor Drive System” (On-Going) (Main supervisor).</p> <p>14. Nooradzianie Bt M Zin “Efficiency Optimization of a Vector Control for PMSM Drive System” (On-Going) (Main supervisor).</p> <p>15. Mohd Abdul Talib Mat Yusof “Efficiency Optimization of a Vector Control for BLDC Drive System” (On-Going) (Main supervisor).</p>
<p>15. Teaching Experiences</p>	<ol style="list-style-type: none"> 1. Sem. 2, 2008/ 2009 – Power Electronic (BEE4113) and Utilisation of Electric Energy (BEE4213). 2. Sem. 1, 2009/ 2010 – Power Electronic (BEE4113) and Utilisation of Electric Energy (BEE4213) and Electrical Engineering Laboratory V (BEE4191). 3. Sem. 2, 2009/ 2010 – Power Electronic (BEE4113) and Utilisation of Electric Energy (BEE4213). 4. Sem. 1, 2010/ 2011 – Programmable Electronics (MEE 10203), Master Laboratory I (MKE1021) and Power Electronic (BEE4113). 5. Sem. 2, 2010/ 2011 – Advanced Power Electronics (MEE 10603), Programmable Electronics (MEE 10203), Master Laboratory I (MKE1021), Power Electronic (BEE4113) and Electrical Engineering Laboratory V (BEE4191). 6. Sem. 1, 2011/ 2012 – Electric Drives and Application (MKE 10103), Master Laboratory II (MKE2012), Power Electronic (BEE4113) and Electrical Engineering Laboratory V (BEE4191). 7. Sem. 2, 2011/ 2012 – Advanced Power Electronics (MEE 10603), Electric Drives and Application (MKE 10103), Master Laboratory I (MKE1021), Master Laboratory II (MKE2012), Electric Machines and Drives (BEX42403).