

RESUME

UTM-PROTON Future Drive Laboratory, Faculty of Electrical Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor Bahru, MALAYSIA MOBILE PHONE: +60136033176

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MOHAMMAD JANNATI

PERSONAL DATA

• Name: Mohammad, Family name: Jannati

• Born in 14 July 1984

Married

• Nationality: Iranian

RESEARCH INTERESTS

- Control of motor drives
- Power electronics

EDUCATION	
Sep 2011 - Present	UTM University, Skudai- JB-Malaysia
	PHD in Power Electronic engineering
Sep 2008 - Sep 2010	Guilan University, Guilan-Iran
	MSc in Power engineering
Sep 2002 - Feb 2008	Mazandaran University, Mazandaran-Iran
	BSc in Power engineering
Sep 1998 - Jul 2002	Sampad high School of Superior Students, Gorgan-Iran
	High School Diploma

HONORS AND AWARDS	
Nov 2013	Best Paper Award (in the field of Multiphase Drives) of the 39th
	Annual Conference of the IEEE Industrial Electronics Society
	(IECON2013)
Jan 2014-Jan 2015	UTM International Doctoral Fellowship
Jan 2012-Present	Member of the Power Electronics and Drives Research Group
Jan 2012-Fresent	(PEDRG), Department of Energy Conversion, UTM
San 2014 Present	Member of Universal Association of Computer and Electronics
Sep 2014-Present	Engineers (UACEE)
Jan 2012-Present	Member of the UTM-PROTON Future Drive Laboratory (UPFDL)
Jun 2013	Certificate of appreciation: 2013 Electrical Engineering Research
	Colloquium (EERC) as committee member
2012-2013	Certificate of achievement: Intensive English Course

ACADEMIC SERVICE	
ACADEMIC SERVICE Editorial Board: Reviewer for Technical Journals:	 International Journal of Engineering & Technology Research International Journal of Research in Electrical & Electronics Engineering ACADEMIC JOURNALS ONLINE (AJO) International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) Universal Journal of Electrical and Electronic Engineering International Journal of Electrical and Electronic Science IETE Technical Review International Journal of Computer and Electrical Engineering (IJCEE) PRZEGLĄD ELEKTROTECHNICZNY ELEKTRIKA International Journal of Power Electronics and Drive Systems (IJPEDS)
	 American Journal of Electrical and Electronic Engineering Scientific Journal of Electrical Engineering (SJEE) International Journal of Electrical, Electronics and Data Communication (IJEEDC) International Journal of Electrical and Electronics
	 Engineering Research (IJEEER) International Journal of Scientific & Technology Research (IJSTR) International Journal of Engineering Research and General Science (IJERGS) Asian Journal of Applied Sciences (AJAS) International Journal of Electrical, Electronics & Computer Science Engineering (IJEECSE)
Reviewer for Technical International Conferences:	 The Third International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAEECE2015) 30th Annual IEEE Applied Power Electronics Conference & Exposition PECON2014
Conference Program Organizer:	2013 Electrical Engineering Research Colloquium (EERC)

PUBLICATIONS

Journal papers:

- 1) Mohammad JANNATI, Ali MONADI, Nik Rumzi NIK IDRIS, Ahmad Athif MOHD FAUDZI and Frede BLAABJERG, "Modeling and rotor field-oriented control of faulty three-phase induction motor based on GSA for tuning of PI controllers," *Turkish Journal of Electrical Engineering & Computer Sciences*, (Accepted).
- 2) Mohammad Jannati, Sajad Abdollahzadeh Anbaran, Nik Rumzi Nik Idris, Mohd Junaidi Abdul Aziz, "A Novel Technique for Vector Control of Single-Phase Induction Motors Based on Rotor

- Field-Oriented Control," TELKOMNIKA Telecommunication, Computing, Electronics and Control (Accepted).
- 3) M. Jannati, N. R. N. Idris and M. J. A. Aziz, "Indirect Rotor Field-Oriented Control of Fault-Tolerant Drive System for Three-Phase Induction Motor with Rotor Resistance Estimation Using EKF," *TELKOMNIKA Indonesian Journal of Electrical Engineering*. 12(9), 2014.
- 4) M. Jannati, S. H. Asgari, N. R. N. Idris and M. J. A. Aziz, "Speed Sensorless Direct Rotor Field-Oriented Control of Single-Phase Induction Motor Using Extended Kalman Filter," *International Journal of Power Electronics and Drive Systems (IJPEDS)*, 4(4), 2014.
- 5) M. Jannati, A. Monadi, N. R. N. Idris and M. J. A. Aziz, "Speed Sensorless Vector Control of Unbalanced Three-Phase Induction Motor with Adaptive Sliding Mode Control," *International Journal of Power Electronics and Drive Systems (IJPEDS)*, 4(3), 2014.
- 6) M. Jannati, A. Monadi, S. A. Anbaran, N. R. N. Idris and M. J. A. Aziz, "An Exact Model for Rotor Field-Oriented Control of Single-Phase Induction Motors," *TELKOMNIKA Indonesian Journal of Electrical Engineering*, 12(7), 2014.
- 7) M. Jannati, N. R. N. Idris, M. J. A. Aziz, A. Monadi and A. A. M. Faudzi, "A Novel Scheme for Reduction of Torque and Speed Ripple in Rotor Field Oriented Control of Single Phase Induction Motor Based on Rotational Transformations," *Research Journal of Applied Sciences, Engineering and Technology*, 7(16), 2014.
- 8) M. JANNATI, A. MONADI, N. R. N. IDRIS, M. J. A. AZIZ and A. A. M. FAUDZI, "Vector Control of Faulty Three-Phase Induction Motor with an Adaptive Sliding Mode Control," *PRZEGLAD ELEKTROTECHNICZNY*, 89(12), 2013.

Conference papers:

- 9) M. Jannati, A. Monadi, G. W. Yen, S. H. Asgari, N. R. N. Idris and M. J. A. Aziz, "A Simple Vector Control Technique for 3-Phase Induction Motor under Open-Phase Fault Based on GA for Tuning of Speed PI Controller," *CENCON 2014*, (Accepted).
- 10) S. H. Asgari, M. Jannati, N. R. N. Idris "Modeling of Three-Phase Induction Motor with Two Stator Phases Open-Circuit," *CENCON 2014*, (Accepted).
- 11) A. Anbaran, M. Jannati, N. R. N. Idris and M. J. A. Aziz, "Rule-Based Supervisory Control of Split-Parallel Hybrid Electric Vehicle," *CENCON 2014*, (Accepted).
- 12) M. Jannati, A. Anbaran, M. I. Alsofyani, N. R. N. Idris and M. J. A. Aziz, "Modeling and RFOC of faulty three-phase IM using Extended Kalman Filter for rotor speed estimation," *In 8th International Power Engineering and Optimization Conference (PEOCO)*, 2014.
- 13) M. I. Alsofyani, N. R. N. Idris, M. Jannati, A. Anbaran, M. I. Alsofyani, and Y. A. Alamri, "Using NSGA II multiobjective genetic algorithm for EKF-based estimation of speed and electrical torque in AC induction machines," *In 8th International Power Engineering and Optimization Conference (PEOCO)*, 2014.
- 14) M. Jannati, S. H. Asgari, A. Monadi, N. R. N. Idris, M. J. A. Aziz, D. Dehghani and A. A. M. Faudzi, "Modeling and Speed Estimation of A Faulty 3-Phase Induction Motor by Using Extended Kalman Filter," *IEEE Symposium on Computer Applications and Industrial Electronics (ISCAIE)*, 2014 (Accepted).
- 15) M. Jannati, S. Anbaran, N.R.N. Idris, M.J.A. Aziz, "A Novel Speed Sensorless SVM-DTC in Induction Motor by Using EKF," *IEEE Student Conference on Research and Development (SCOReD)*, 2013 (Accepted).
- 16) M. Jannati, N.R.N. Idris, M.J.A. Aziz, S.H. Asgari, A. Monadi, A.A.M. Faudzi, "A New Method for RFOC of Single-Phase Induction Motor Based on Rotational Transformations," *IEEE Student Conference on Research and Development (SCOReD)*, 2013 (Accepted).
- 17) M. Jannati, S. Anbaran, N.R.N. Idris, M.J.A. Aziz, "Vector Control of Three-Phase Induction Motor Under Open-Phase Fault," *IEEE Student Conference on Research and Development (SCOReD)*, 2013 (Accepted).
- 18) M. Jannati, N.R.N. Idris, M.J.A. Aziz, A. Monadi, M.F Al-Jaf, A.A.M. Faudzi, "Using of

- EKF for Speed Sensorless SVM-DTC in Induction Motor at Low Speed," *IEEE Student Conference on Research and Development (SCOReD)*, 2013 (Accepted).
- 19) M. Jannati, N. R. N. Idris and M. J. A. Aziz, "A new method for RFOC of Induction Motor under open-phase fault," *In 39th Annual Conference of the Industrial Electronics Society, (IECON2013)*, Nov. 2013.
- 20) M. Jannati, N. R. N. Idris and Z. Salam, "A New Method for Modeling and Vector Control of Unbalanced Induction Motors," *IEEE Energy Conversion Congress and Exposition (ECCE2012)*, Sep 2012.
- 21) M. Jannati, E. Fallah, "A New Method for Vector Control of Unbalanced Induction Motors," *Conf. Proc. Of ICEE*, 2012 (In Persian).
- 22) M. Jannati, E. Fallah, "A New Method for Speed Sensorless Vector Control of Single- Phase Induction Motor Using Extended Kalman Filter," *Conf. Proc. Of ICEE*, August 2011.
- 23) M. Jannati, E. Fallah, "Modeling and Vector Control of Unbalanced induction motors (faulty three phase or single phase induction motors)," *1st Conference on Power Electronic & Drive Systems & Technologies (PEDSTC)*, May 2010.

Papers under review:

- 24) M. Jannati, A. Monadi, N. R. N. Idris and M. J. A. Aziz, "Analytical Calculation of RFOC Method in Single-Phase Induction Motor," *International Journal of Electronics*.
- 25) M. Jannati, N. R. N. Idris, "Bi Input-FOC of 3-Phase IM," *Turkish Journal of Electrical Engineering & Computer Sciences*.
- 26) M. Jannati, N. R. N. Idris and M. J. A. Aziz, "IFOC of Faulty Single-Phase IMs," *TELKOMNIKA Indonesian Journal of Electrical Engineering*.
- 27) M. Jannati, N. R. N. Idris and M. J. A. Aziz, "Modeling and Vector Control of Single-Phase IMs under Open-Phase Fault," *International Journal of Engineering*.
- 28) M. Jannati, N. R. N. Idris and M. J. A. Aziz, "A Novel Method for Rotor Field-Oriented Control of Single-Phase Induction Motors," *International Journal on Electrical Engineering and Informatics*.
- 29) Mohammad Jannati, Seyed Hesam Asgari, Nik Rumzi Nik Idris & Mohd Junaidi Abdul Aziz, "A Novel Method for Vector Control of Three-Phase Induction Motor under Open-Phase Fault," *ITB Journal*

Technical reports

- 30) M. Jannati, E. Fallah, "Vector Control and Speed Estimation of Unbalanced Induction Motor Using Kalman Filter," *10st Conference on Electrical Engineering of Guilan University*, 2009 (In Persian).
- 31) M. Jannti, "Modeling and Speed Estimation of A Faulty 3-Phase Induction Motor by Using Extended Kalman Filter," 2013 Electrical Engineering Research Colloquium (EERC), 2013.

PRESENTATION AT CONFERECES AND PROFESSIONAL MEETINGS	
2009	"Modeling and Simulation of Three Phase Induction Motor by
	Using Winding Function Method," Seminar Presentations at the
	Department of Electrical Engineering, University of Guilan.
2009	"Vector Control and Speed Estimation of Unbalanced Induction
	Motor Using Kalman Filter," 10st Conference on Electrical
	Engineering of Guilan University.
2010	"Modeling and Vector Control of Unbalanced induction motors
	(faulty three phase or single phase induction motors)," 1st
	Conference on Power Electronic & Drive Systems & Technologies
	(PEDSTC).

2011	"A New Method for Speed Sensorless Vector Control of Single-
	Phase Induction Motor Using Extended Kalman Filter," Conf. Proc.
	Of ICEE.
2013	"Modeling and Speed Estimation of A Faulty 3-Phase Induction
	Motor by Using Extended Kalman Filter," 2013 Electrical
	Engineering Research Colloquium (EERC).
2013	"Using of EKF for Speed Sensorless SVM-DTC in Induction Motor
	at Low Speed," IEEE Student Conference on Research and
	Development (SCOReD).
2013	"Vector Control of Three-Phase Induction Motor Under Open-
	Phase Fault," IEEE Student Conference on Research and
	Development (SCOReD).
2014	"Modeling and Speed Estimation of A Faulty 3-Phase Induction
	Motor by Using Extended Kalman Filter," IEEE Symposium on
	Computer Applications and Industrial Electronics (ISCAIE).

RESEARCH EXPERIENCES

- Modeling and vector control of three-phase IM under open-phase fault (PHD and MSC topic)
- Vector control of single-phase IM
- High performance vector control of single-phase IM
- High performance vector control of three-phase IM
- Modeling and vector control of three-phase IM when two-phases are open-circuit
- Fault detection in three-phase IM
- Vector control of faulty single-phase IM
- High performance vector control of faulty three-phase IM
- Hybrid Electric Vehicle

WORK EXPERIENCES	
Sep 2011 - Present	Member of the UTM-PROTON Future Drive Laboratory, Faculty of
	Electrical Engineering, Universiti Teknologi Malaysia, MALAYSIA
Dec 2009 - Apr 2010	Assistant in a Lab Machine, Guilan-Iran
Jun 2009 - Jun 2011	Assistant at ROSHD Electricity Institute (Part-time), Gorgan-Iran
Sep 2009 - Dec 2009	Tutor of Electric Machinery, Guilan-Iran
Jun 2007 - Sep 2007	Internship, Gorgan Electricity Co, Gorgan-Iran
Sep 2005 - Jan 2005	Tutor of Signals & Systems, Mazandaran-Iran

REFERENCES	
Asst. Prof. E. Fallah	My M.Sc. Thesis Supervisor
	Department of Electrical Engineering
	Guilan University, Guilan, Iran
	Tel: +98 912 517 2071 Fax: +98 131 6690271
	Email: fallah_e@guilan.ac.ir
Assoc. Prof. Nik	My PHD Thesis Supervisor
Rumzi Nik Idris	Department of Energy Conversion (EnCon)
	UTM University, Skudai, JB, Malaysia
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