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General Information

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Ghias Farivar- Birth Date: Jun/1985

gh_farivar@hotmail.com,

Call No. +98 9113727049

Web page: <https://sites.google.com/site/ghiasfarivar/home>

Education

B.Sc : Electrical Engineering (Power), Nooshirvani Institute of Technology (Babol, Iran).

Graduated at Sep/2008, GPA: 17.22/20.00 (First Rank Among 100)

M.Sc: Electrical Engineering (Power Electronics and Electric Machines), University of Tehran (Tehran, Iran).

Graduation Date: Feb/2011, GPA: 17.02/20.00

Familiar Topics and Interests

FACTS devices (B.Sc Thesis) - MPPT in Photovoltaic (M.Sc Thesis) - PWM Techniques- Cascaded H-bridge Converter – dc_dc Converters -Ac_Ac Converters - Hybrid Vehicles Control-Fuzzy Logics

Publications

Conference Articles:

- [1] Rezaei, Mohammad Ali; Farhangi, Shahrokh; **Farivar, Ghias**; , "An improved predictive current control method for grid-connected inverters," *Power Electronic & Drive Systems & Technologies Conference (PEDSTC), 2010 1st* , vol., no., pp.445-449, 17-18 Feb. 2010
- [2] **Farivar, G.**; Asaei, B.; Rezaei, M.A.; , "A novel analytical solution for the PV-arrays maximum power point tracking problem," *Power and Energy (PECon), 2010 IEEE International Conference on* , vol., no., pp.917-922, Nov. 29 2010-Dec. 1 2010
- [3] **Farivar, G.**; Asaei, B.; , "Photovoltaic module single diode model parameters extraction based on manufacturer datasheet parameters," *Power and Energy (PECon), 2010 IEEE International Conference on* , vol., no., pp.929-934, Nov. 29 2010-Dec. 1 2010
- [4] S. Farhangi, **G. Farivar**, S. Mehrnami, , "A Fast and Noise Immune MPPT Algorithm for Potovoltaic Power Conditioners" U.S. – Iranian Technical Workshop, Nov. 2010, Irvine, CA, USA.
- [5] **Farivar, G.**; Asaei, B.; Haghdadi, N.; Iman-Eini, H.; , "A novel temperature estimation method for solar cells," *Power Electronics, Drive Systems and Technologies Conference (PEDSTC), 2011 2nd* , vol., no., pp.336-341, 16-17 Feb. 2011 (*Best paper award*)
- [6] Teymourfar, Reza; **Farivar, Ghias**; Iman-Eini, Hossein; Asaei, Behzad; , "Optimal stationary super-capacitor energy storage system in a metro line," *Electric Power and Energy Conversion Systems (EPECS), 2011 2nd International Conference on* , vol., no., pp.1-5, 15-17 Nov. 2011
- [7] **Farivar, G.**; Teymourfar, R.; Iman-Eini, H.; , "Indirect controller application on cascaded H-bridge rectifier," *Electric Power and Energy Conversion Systems (EPECS), 2011 2nd International Conference on* , vol., no., pp.1-5, 15-17 Nov. 2011
- [8] Hasan Alipour, Behzad Asaei, **Ghias Farivar**, "Fuzzy Logic Based Power Management Strategy for Plug-in Hybrid Electric Vehicles with Parallel Configuration", *Accepted for publication (ICREPO-2012 conf) Santiago de Compostela, Spain*

- [9] Milad Momayyezian, **Ghias Farivar**, Hossein-Imaneini "An Improved FLC Algorithm for Tracking Maximum Power Point in Photovoltaic Systems"(IEEE-PEDSTC-2012 conf) Tehran, Iran
- [10] Maryam Bahramipanah, **Ghias Farivar**, and Saeed Afsharnia, "DFIG Wind Turbine Three Single Phase Grid Side Converters Control Strategy, " (IEEE-PEDSTC-2012 conf) Tehran, Iran
- [11] Navid Haghdad, **Ghias Farivar**, Hossein imain-Eini,"An Analytic Approach for Estimating the Maximum Power Point of a Solar Vehicle", (IEEE-ICEE-2012 conf) Tehran, Iran

Journal Articles:

- [1] **Farivar, G.**; Asaei, B.; , "A New Approach for Solar Module Temperature Estimation Using the Simple Diode Model," *Energy Conversion, IEEE Transactions on* , vol.26, no.4, pp.1118-1126, Dec. 2011
doi: 10.1109/TEC.2011.2164799
URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6043868&isnumber=6083464>

Under Review Articles:

- [1] Reza Teymourfar, **Ghias Farivar**, Behzad Asaei, and Hossein Iman-Eini ." Optimal stationary Super-capacitor Energy Storage System in a Metro Line" (*IEEE Trans on Vehicular Technology*)
- [2] Milad Momayyezian, **Ghias Farivar**, Hossein-Imaneini "Fuzzy Logic Based Maximum Power Point Tracker with Minimum Number of Sensors"(IEEE-ICREDG-2012 conf) Tehran, Iran
- [3] Seyed Vahid Khatami, Hamid Soleimani, Saeed Afsharnia, Mahmoud-Reza Haghifam, **Ghias Farivar**," Micro-grid Power Quality Improvement by Integrated Load Sharing and Active Filter Control Loops"(*IEEE Transactions on Energy Conversion*)

Language Skill

Turkmen & Persian (Native Speaker)
Turkish (Conversational)
English: TOFEL iBT. 96(R-29, L-27, S-19, W-21)
GRE. (Verbal-146 (400), Analyt-166 (800), W-3)

Technical Skills

Software:

MATLAB (Programming and Simulink), PSCAD, MAPLE, AUTOCAD, BASCOM, ADVISOR, DXP, PLC OMRON, Code Composer v3.3

Micro Processors and Controllers:

AVR, DSP 2812

Experiences

Teaching Assistance (Several Courses)
Reviewer (IEEE-PECON 2010, IEEE-PEDSTC 2011)

Selected Projects and Seminars

Design and simulation of a resonant converter (Simulink)
Induction motor parameters estimation using start-up and L-L fault data (MATLAB)

DFIG grid integration using three single phase series connected grid side converters (Simulink)
Implementation of three dimensional SVM for controlling a 4-leg converter (PSCAD)
Control of a STATCOM and its effects to the grid (Seminar)
Integration of roof mounted solar cells on the HEVs (Seminar)
Fuel cell technology (Seminar)
Modeling a nonlinear Inductor with considering its hysteresis band (Simulink)
Implementation of a battery charger using HC algorithm (Experimental)
Grid connected 7-level CHBR (Simulink)
Modeling a metro network (PSCAD)
Designing an optimal energy storage system for metro stations (MATLAB)
Induction machine S(R)FOC derive (Simulink)
Synchronous PM machine FOC derive (Simulink)
Induction machine parameters estimation using start-up and fault current data (Simulink)
Review and comparison of MPPT techniques (Iran Power Development Corporation)
Simulation and comparison of grid connected solar systems (Iran Power Development Corporation)

Honors

A Summa cum Laude Graduate in B.Sc.
Member of Iranian National Elite Foundation
The best paper award in the *IEEE-PEDSTC 2011* conference.
The best innovation award in National Renewable Energy Festival 2011