



**Hamid Reza Izadfar**  
**Assistant Professor**

**Department of Electrical and Computer Engineering**  
**Semnan University, Semnan, Iran**  
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**EDUCATION:**

- 2002-2009: **PhD**, Electrical Engineering  
K.N. Toosi University of Technology, Tehran, Iran.  
Dissertation: [Optimized Design of IPMSM](#)  
Advisor: Prof. Mohammad Ardebili and Dr. S. Shokri
- 2000-2002: **M.Sc.** Electrical Engineering  
K.N. Toosi University of Technology, Tehran, Iran.  
Thesis: [Load flow in an multigrounded unbalanced distributed system](#)  
Advisor: Prof. Mohammad Bathaei.
- 1996-2000: **B.Sc.** Electrical Engineering.  
Sahand University of Technology, Tabriz, Iran.  
Project: [Simulaneous Control of two stepper motors by 8051 microcontroler](#)  
Advisor: Prof. Ghaffarian

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**TEACHING EXPERIENCE:**

- **Graduate Courses**
  - Numerical Methods in Electromagnetic
  - Analysis Of Electric Machinery and Drive Systems
  - AC Drives
- **Undergraduate Courses**
  - Electric Machines
  - Power Stations

- Electrical Circuits

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**Software:**

- MATLAB
- Maxwell (Ansis Electronic Desktop)
- ETAP
- JMAG

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**LANGUAGES:**

- Persian (Farsi): Fluent (mother tongue)
- English: Fluent

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**STUDENTS SUPERVISION**

ECE Dep, Semnan University:

Supervision of 3 Ph.D. thesis.

Supervision of 30 MSc desertation.

Supervision of more than 40 BS final projects.

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**PUBLICATIONS:****Selected Journal Papers:**

- 1- H. Shadfar and H. R. Izadfar, "Improvement of Electromagnetic Forces in a Single-Phase Induction Motor by Providing a New Winding Distribution", Iranian Journal of Electrical and Electronic Engineering (In Press) (2019).
- 2- A Nikbakhsh, Hamid Reza Izadfar, M Jazaeri, " Classification and Comparison of Rotor Temperature Estimation Methods of Squirrel Cage Induction Motors", Measurement 145 (2019) 779–802.
- 3- Saleh Mohammadi, Hamid Reza Izadfar, Naser Eskandarian, " A new adaptive clamp for improving weighted efficiency in grid-tied photovoltaic interleaved two-switch flyback micro-inverter", International Transactions on Electrical Energy Systems, Vol. 29, No.8, 16 May, pp:1-25
- 4- Abdolreza Azizi and Hamid Reza Izadfar, " A Novel ANFIS-based MPPT Controller for Two-Switch Flyback Inverter in Photovoltaic Systems", Accepted for publication in Journal of Renewable and Sustainable Energy, Vol. 11, No. 4, June 2019, pp.044702:1-10

- 5- Hamid Reza Izadfar, " [Calculation of Rotor bars Current and MMF in a Squirrel Cage Induction Machine](#)", Journal of Modeling in Engineering, Volume 16, Issue 52, Winter 2018, pp. 163-170.
- 6- H. R. IZADFAR AND S. GHOLAMI KHARKESHI, " [REDUCTION OF INVERTER OUTPUT CURRENT RIPPLE IN CONNECTION OF FUEL CELL TO THE POWER NETWORK](#)", Iranian Journal of Fuzzy Systems, Vol. 15, No. 5, (2018) pp. 117-131.
- 7- Mohammad Sadegh Jahan, Reza Keypour, Hamid Reza Izadfar, and Mohammad Taghi Keshavarzi, " [Detecting the location and severity of transformer winding deformation by a novel adaptive particle swarm optimization algorithm](#)", International Transactions on Electrical Energy Systems, Vol. 29, Issu 1, 2018, pp.1-15,
- 8- Mohammad Sadegh Jahan, Reza Keypour, Hamid Reza Izadfar, and Mohammad Taghi Keshavarzi, " [Locating power transformer fault based on sweep frequency response measurement by a novel multistage approach](#)", IET Science, Measurement & Technology, Volume 12, Issue 8, November 2018, pp. 949 – 957.
- 9- AMIR NIKBAKHSI, HAMIDREZA IZADFAR, and YOUSEF ALINEJAD BEROMI, " [DESIGN AND OPTIMIZATION OF PERMANENT MAGNET SYNCHRONOUS GENERATOR FOR USE IN HYDRODYNAMIC RENEWABLE ENERGY BY APPLYING ACO AND FEA](#)", IIUM Engineering Journal, Vol. 18, No. 2, 2017.
- 10- Hamid Reza Izadfar and Hamid Naseri, " [Dynamic and steady state modeling of permanent magnet induction machine](#)", COMPEL - The international journal for computation and mathematics in electrical and electronic engineering, Vol. 37 Issue: 1, pp.465-483, 2017
- 11- Hamid Reza Izadfar and Reza Nikzad, " [Design of an optimized Adaptive Neural Fuzzy controller for Constant Speed Wind Turbine](#)", Computational Intelligence In Electrical Engineering, Volume 7, Issue 4, Winter 2017, Page 1-12.
- 12- O. Abedinia, N. Amjady, H.R. Izadfar, H.A. Shayanfar, " [MULTIMACHINE POWER SYSTEM OSCILLATION DAMPING: PLACEMENT AND TUNING PSS VIA MULTIOBJECTIVE HBMO](#)", International Journal on "Technical and Physical Problems of Engineering (IJTPE)", Vol. 4, No. 3, Pages 1-8, 2012.
- 13- H.A. Shayanfar, A. Ghasemi, O. Abedinia, H.R. Izadfar, N. Amjady, " [OPTIMAL PID POWER SYSTEM STABILIZER TUNING VIA ARTIFICIAL BEE COLONY](#)", International Journal on "Technical and Physical Problems of Engineering (IJTPE)", Vol. 4, No. 3, Pages 75-82, 2012.
- 14- Hamid Reza Izadfar and Mehdi Bakhshi, " [The Effect of Nonlinear Loads on MMF Wave of a Synchronous Generator](#)", Indian Journal of Science and Technology, Vol 10(5), 2017.

- 15- Hamid Reza Izadfar and Mehdi Bakhshi, [The Effect of Nonlinear Loads on MMF Wave of a Synchronous Generator](#)“, Indian Journal of Science and Technology, Vol 10(5), 2017.
- 16- Hossein Asgharpour-Alamdari, Hamidreza Izadfar, Reza Ilka, Yousef Alinejad-Beromi, Hamid Yaghobi, [Comparison of Different Permanent Magnet Arrangements of BLDC Motors based on Finite Element Analysis](#)“, International Journal of Mechatronics, Electrical and Computer Technology, Vol. 4(12), Jul, 2014, pp. 1353-1365.

#### **Selected Conference Papers:**

- 1- Abdolreza Azizi and Hamid Reza Izadfar,“ [High-Efficiency MPPT Controller Using ANFIS reference Model For Solar Systems](#)“, 5th Conference on Knowledge-Based Engineering and Innovation, Iran University of Science and Technology, Tehran, Iran, 2019.
- 2- Hamid R. Izadfar, Hamed Valinejad, Ehsaan Momeni,“ [Optimal design of direct drive axial flux permanent magnet generator for wind turbine](#)“, 1st Joint Iran & Germany Conference on Renewable Energy, Shahid Beheshti University, Tehran, Iran, September 9-10, 2014.
- 3- Seyed Javad Tabatabaei, Hamid Reza Izadfar,“ [A New Approach Based on Particle Swarm Optimization for Volt & Var Control in Power Distribution Systems Considering Distributed Generations](#)“, 1st Joint Iran & Germany Conference on Renewable Energy, Shahid Beheshti University, Tehran, Iran, September 9-10, 2014.
- 4- Saeed Darabi, Yousef Alinejad Beromi, and Hamid Reza Izadfar,“ [Comparison of Two Common Configurations of LSRM: Transverse Flux and Longitudinal Flux](#)“, International Conference and Exposition on Electrical and Power Engineering (EPE 2012), 25-27 October, Iasi, Romania

- ۵- رضا نیکزاد ، حمیدرضا ایزدفر، " راه اندازی بهینه توربین بادی سرعت ثابت با کنترل کننده فازی- عصبی و الگوریتم ژنتیک "، سی امین کنفرانس بین المللی برق ایران ، ابان ۹۴، تهران، ایران
- ۶- حسین اکبری و حمیدرضا ایزدفر، " بهبود طیف هارمونیک ولتاژ خروجی یک توربین بادی با ژنراتور سنکرون مغناطیس دائم به کمک الگوریتم بهینه سازی فاخته "، ۲۲امین کنفرانس شبکه های توزیع نیروی برق ایران، فروردین ۹۶، سمنان، ایران