

General Information



Current Position: Associate Professor
Affiliation: Faculty of Electrical and Computer Engineering (ECE), Semnan University
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1- EDUCATION

Ph.D. : Wolfson Centre for Magnetic Technology, University of Wales College of Cardiff (UWCC), U.K., (High Honors), 1992

MSc. : Wolfson Centre for Magnetic Technology, University of Wales College of Cardiff (UWCC), U.K., (High Honors), 1989

BSc. : Khajeh Nasiradine Tousee University, Iran, (Honors), 1985

2- ACADEMIC APPOINTMENTS

Semnan University:

Assistant Professor: 1995-2014

Associate Professor: 2014

Administrative Positions at Semnan University:

Director of Electrical Power Engineering Department of Semnan University :2008-2014

3- Industrial Appointments and Activities

Technical Director of Iran Tablo Company (ITC), Iran (1993-1998)

Founder and Technical Director of Mehrvarzan Company (1998-Present)

Growing of 2000 Pistachio Trees in a 2 Hectares Garden for Doing Deficient Irrigation research in the Field of Computers and Electronics in Agriculture

4- RESEARCH AND TEACHING INTERESTS

Research Interests:

Magnetic Materials:

Design of Digital Measurement System for Magnetization and Measurement of Magnetic Properties of Different Kinds of Electrical Steel Sheets under Controlled Magnetization. Power loss Analysis in Electrical Steels.

Electrical Machines Design, Modelling and Optimization:

Transformers, PMSM, SRM and LSRM, BLDC Motors, Torque Ripple Minimization Techniques, High Speed Hysteresis Motors.

Industrial Automation Based on PLC & HMI:

Using PLC and HMI for Full Automatic Control and Saving Energy Consumption in Industry.
PLC Based Regulated Deficit Irrigation System for Different Crops Applications in Dry Regions.

Power System Voltage Stability and Control :

Voltage stability assessment and enhancement.

Dynamic Voltage Restorer

Optimal Phasor Measurement Unit (PMU) Placement for Power System Observability and State Estimation.

Publications:

About 40 technical articles and 1 book

Research Supervision and Activities:

2 doctoral dissertations and 40 Master's thesis students

Technical Courses Taught:

Magnetic Materials and Measurements, Electrical Machines, Electrical and Electronic Measurements, Industrial Automation, Energy Management.

5- INDUSTRIAL EXPERIENCES

Design, Implementation and Commissioning of Control Systems based on relay and PLC and HMI for different Industrial Projects (During 1995-Present) : Some of them are as follows;

- 1- Ard Tejarat Flour Mill (Capacity: 300 Ton/Hr.) Constructed by Buhler Co. (Germany).
- 2- Golard Isfehan Flour Mill (Capacity: 250 Ton/Hr.) Constructed by Buhler Co. (Germany).
- 3- Ard Zorrate Illia Corn Mill (Capacity: 100Ton/Hr.) Constructed by Buhler Co. (Germany).
- 4- Varamin Flour Mill (Capacity: 250 Ton/Hr.) Constructed by Buhler Co. (Germany).
- 5- Sepidan Flour Mill (Capacity: 250 Ton/Hr.) Constructed by Buhler Co. (Germany).
- 6- And many Wheat Storage Silos and other Food Production Factories.
- 7- Design and Construction of Electrical and Control System for Different Data Centers.
- 8-

6- Paper Publication

Published Journal and Conference Papers are as Follows:

- 1- **Y. Alinejad-Beromi** "Rotational Power Loss Measurement System under Controlled Magnetization" Ph.D. Theses, University of Wales, 1992.
- 2- **Y. Alinejad-Beromi**—A.J. Moses – T. Meydan "New aspects of rotational field and flux measurements in electrical steel" Journal of Magnetism and Magnetic Materials, 1992, 112 (1), 135-138
- 3- **Alinejad-Beromi Y.** – Moses A.J "Comparison of rotational loss in non-oriented 6.5% silicon iron materials at power frequency" Proceeding of IEEE Conference on Magnetic, April 1992, p.284.

- 4- A.M. Gumaidh, W.L. Mahadi, **Y. Alinejad-Beromi**, A.J. Moses, T. Meydan " Measurement and analysis of rotational power loss in soft magnetic materials" First International Workshop on Magnetic Properties of Electrical Sheet under Two-Dimensional Excitation, Proceedings of the 93. PTB-Seminar, Physikalisch-Technische Bundesanstalt (PTB), Braunschweig (Germany).
- 5- M.H. Khanzade, **Y. Alinejad-Beromi**, A. Shoulaie "Calculation of Turn Skipping Losses in Helical Flux Compression Generators", Plasma Science, IEEE Transactions on 40 (2), 505-510, 2012.
- 6- **Y. Alinejad-Beromi**, M. Sedighzadeh, M. Sadighi "A particle swarm optimization for sitting and sizing of distributed generation in distribution network to improve voltage profile and reduce THD and losses" Universities Power Engineering Conference, 2008. UPEC 2008. 43rd International, pp: 1-5.
- 7- A. Ahmadi, **Y. Alinejad-Beromi**, M. Moradi " Optimal PMU placement for power system observability using binary particle swarm optimization and considering measurement redundancy" Expert Systems with Applications 38 (6), 7263-7269, 2011.
- 8- **Y. Alinejad-Beromi**, M. Sedighzadeh, M.R. Bayat, M.E. Khodayar " Using genetic algorithm for distributed generation allocation to reduce losses and improve voltage profile" Universities Power Engineering Conference, 2007. UPEC 2007. 42nd pp: 954-959.
- 9- H. Livani, M. Bandarabadi, **Y. Alinejad-Beromi** "Improvement of Fault Ride-Through Capability in Wind Farms Using VSC-HVDC" European Journal of Scientific Research, 2009, pp. : 328-337.
- 10- M.H. Khanzade, **Y. Alinejad-Beromi**, A. Shoulaie "Accurate Modeling of the Eddy Current Effects in Helical Flux Compression Generators Using 2-Dimensional Filamentary Method In Frequency Domain" , International Review on Modelling and Simulations 2 (4), 433-437, 2009.
- 11- Khanzade, M.H. , **Alinejad-Beromi, Y.** , Shoulaie, A. " Calculation of time-varying equivalent inductance and resistance of helical flux compression generators using 2-D filamentary method and dynamic matrix concept", Universities Power Engineering Conference, 2008. UPEC 2008. 43rd . , pp: 1-5.
- 12- Abbas Rezaey, **Yousef Alinejad-Beromi** "A novel concept for high altitude wind energy generation" 2nd International Conference on the Developments in Renewable Energy Technology (ICDRET), 2012, pp: 1-6.
- 13- F. Sheidaei, M. Sedighzadeh, S.H. Mohseni-Zonoozi, **Y. Alinejad-Beromi** "A fuzzy logic direct torque control for induction motor sensorless drive" 42nd International Universities Power Engineering Conference, 2007. UPEC 2007, pp.:197-202.
- 14- **Y. Alinejad-Beromi**, A. Ahmadi, H. Rezai Soleymanpour" Optimal PMU Placement Considering Contingencies by Using a Hybrid Discrete Particle Swarm Optimization Technique" Journal of International Review of Electrical Engineering, 2011, Vol,6, Issue 4.
- 15- A. Arzani, M. Jazaeri, **Y. Alinejad-Beromi** "Available transfer capability enhancement using series FACTS devices in a designed multi-machine power system" 43rd International Universities Power Engineering Conference, 2008. UPEC 2008, pp: 1-5.

- 16- **Y. Alinejad-Beromi**, Z. Moravej, S. Darabi "Torque ripple reduction of switched reluctance motor using PID fuzzy logic controller" International Conference and Exposition on Electrical and Power Engineering (EPE), 2012, pp.: 456-459.
- 17- S. Darabi, **Y. Alinejad-Beromi** "Extension of Architecture of Single-Pulse Controller to Drive Linear Switched Reluctance Motor", Journal of International Review on Modelling & Simulations, 2012, Volume 5, Issue 4.
- 18- M.H. Khanzade, **Y. Alinejad-Beromi**, A. Shoulaie" Calculation of time-varying equivalent inductance and resistance of helical flux compression generators using the 2D filamentary method and dynamic matrix concept in the frequency domain", Chinese Physic B, Volume 19, Number1, 2010, doi: 10.1088 /1674-1056/19/1/018601
- 19- Ahmad Ahmadi, **Yousef Alinejad-Beromi** " A new integer-value modeling of optimal load shedding to prevent voltage instability" International Journal of Electrical Power and Energy Systems 65, 210-219, 2015 .

7- Pictures from Academic and Industrial Experiences in Different Countries (Iran-United Kingdom, Germany, Japan, South Korea, ...)






