

## Peyman Naderi

Associate Professor, Electrical Engineering School, Power Engineering Group, Shahid Rajaee University



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### About me ——

Peyman Naderi was born in Ahvaz, Iran, in 1975. He received his B.S. degree in Electronic Engineering in 1998 and M.S. degree in Power Engineering from Chamran University, Iran, Ahvaz in 2001. He has Ph.D. in Power Engineering from K.N. Toosi University, Tehran, Iran. His interests are electrical machine modeling and fault diagnosis and also power system transient. He is currently an associate professor at Shahid Rajaee Teacher Training University, Tehran, Iran.

# Skills ———

Matlab

FLUX

Maxwell

Autocad

**PSCAD** 

**ETAP** 

### Interests

- Electrical machines modeling and fault diagnosis.
- Power system dynamic and control.
- Dynamic systems simulation and analysis.

#### **Education**

2004-2009 Ph.D. in Power Engineering Khaje Nasir University, Tehran, Iran

Thesis: Electrical Traction System using in Front Differential Vehicles.

1999-2002 M.Sc. in Power Engineering Shahid Chamran University, Ahvaz, Iran *Thesis: Electrical Load Forecasting by ANNs.* 

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#### Publications in JCR Journals since 2012

- 1)-2012 P. Naderi, A. Farhadi, 'NON-DRIVEN WHEELS APPLICATION FOR INTELLIGENT MULTI-OBJECTIVE CONTROL OF HYBRID VEHICLES', International Journal of Robotics and Automation, ☐ CrossReff.
- 2)-2013 *P. Naderi, M. Azizianfard*, 'A Fuel Cell/Battery Hybrid Vehicle Modeling and Power Management/Regenerative Braking Controller Design', *Jurnal of Fuel Cell Science and Technology, □ CrossReff.*
- 3)-2013 *P. Naderi*, 'Distributed Generation, Using Battery/Photovoltaic System: Modeling and Simulation With Relative Controller Design', *Journal of Solar Energy Engineering,* □ CrossReff.
- 4)-2015 *P. Naderi, A. Taheri*, 'Slot Numbering and Distributed Winding Effects Analysis on the Torque/Current Spectrum of Three-phase Wound-rotor Induction Machine Using Discrete Modeling Method', *Electric Power Components and Systems*, C. CrossReff.
- 5)-2015 *P. Naderi*, *A. Shiri*, 'Pole arc skewing analysis of synchronous reluctance machine using discrete method combined with winding function approach', *Applied Computational Electromagnetic Society Journal*, CrossReff.
- 6)-2015 *P. Naderi*, 'Eccentricity Fault Diagnosis and Torque Ripple Analysis of a Four-pole Synchronous Reluctance Machine in Healthy and Faulty Conditions', *Electric Power Components and Systems*, CrossReff.
- 7)-2015 *P. Naderi, F. Fallahi*, 'A novel structure proposal for distributed generation using SMES and PV system with relative controllers design', *Energy Systems*, ☐ *CrossReff*.
- 8)-2016 *P. Naderi*, 'Inter-turn short-circuit fault detection in saturable squirrel-cage induction motor using magnetic equivalent circuit model', COMPEL The International Journal for Computation and Mathematics in Electrical and Electronic Engineering, C CrossReff.
- 9)-2016 *P. Naderi*, 'Torque/current spectral analysis for healthy and eccentricity faulty synchronous reluctance machine using mathematical modeling method', *International Transactions on Electrical Energy Systems*, © CrossReff.
- 10)-2016 P. Naderi, F. Fallahi, 'Eccentricity fault diagnosis in three-phase-wound-rotor induction machine using numerical discrete modeling method', International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, ☑ CrossReff.

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P. Naderi, S. Sharouni, M. Moradzadeh, 'Linear vernier machine wave converter modelling and analysis by

P. Naderi, M. Heidary, M. Vahedi, 'Performance analysis of ladder-secondary-linear induction motor with

P. Naderi, S. Sharouni, M. Heidary, 'A Novel Analysis on a New DC-Excited Flux-Switching Machine using

Modified MEC Method for Ground Power Unit Application', IEEE Trans. on Energy Conversion, C. CrossReff.

S. Sharouni, P. Naderi, M. Hedayati, P. Hajihosseini, 'Performance analysis of a novel outer rotor flux-switching permanent magnet machine as motor/generator for vehicular and aircraft applications',

two different secondary types using Magnetic Equivalent Circuit ', ISA Transaction, ' CrossReff.

*Electronics,* ☐ *CrossReff.* 

MEC ', IET Electric Power Applications, ☐ CrossReff.

*IET Electric Power Applications, ≧ CrossReff.* 

23)-2020

24)-2020

25)-2020

26)-2021

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27)-2021	<i>P. Naderi, M. Heidary</i> , 'A Novel Permanent Magnet Flux-Switching Linear Motor Performance Analysis by Flexible MEC Method', <i>IEEE Trans. on Energy Conversion</i> , 'C' CrossReff.
28)-2021	B. Nikmaram, A. Davarri, P. Naderi, C. Garcia, J. Rodriguez, 'Sensorless Simplified Finite Control Set Model Predictive Control of SynRM Using Finite Position Set Algorithm', IEEE Access, ☐ CrossReff.
29)-2021	R. Ghandehari, P. Naderi, L. Vandevelde, 'Performance Analysis of a New Type PM-Resolver in Healthy and Eccentric Cases by an Improved Parametric MEC Method', IEEE Transactions on Instrumentation and Measurement, C. CrossReff.
30)-2021	P. Naderi, R. Ghandehari, M. Heidary, 'A Comprehensive Analysis on the Healthy and Faulty Two Types VR-Resolvers with Eccentricity and Inter Turn-Faults', IEEE Transactions on Energy Conversion, CrossReff.
31)-2021	M. Heidary, P. Naderi, A. Shiri, 'Modeling and Analysis of a Multi-Segmented Linear Permanent-Magnet Synchronous Machine using a Parametric Magnetic Equivalent Circuit', Electrical Engineering, ☑ CrossReff.
32)-2021	M. Rostami, P. Naderi, A. Shiri, 'Modeling and analysis of variable reluctance resolver using magnetic equivalent circuit.', COMPEL - The international journal for computation and mathematics in electrical and electronic engineering, 🖸 CrossReff.
33)-2021	<i>P. Naderi, A. Ramezannezhad, L. Vandevelde</i> , 'Performance Analysis of Variable Reluctance Linear Resolver by Parametric Magnetic Equivalent Circuit in Healthy and Faulty Cases', <i>IEEE Sensors Journal,</i> ☐ <i>CrossReff.</i>
34)-2021	P. Naderi, A. Ramezannezhad, A. Farhadi, 'A Comprehensive Analysis on a Novel DC-Excited Flux-Switching Linear Motor by a New Parametric Magnetic Equivalent Circuit', Electric Power Component and Systems, ☐ CrossReff.
Publications in Scopus Journals since 2012	
1)-2012	A. Samimi, P. Naderi, 'A new method for optimal placement of TCSC based on sensitivity analysis for congestion management', Smart Grid and Renewable Energy, CrossReff.
2)-2013	P. Naderi, R. Ghandehari, 'Full Modelling and Simulation of Fuel-Cell/Battery Hybrid Vehicle and Power Management Controller Design', International Journal of Modelling and Simulation, C. CrossReff.
3)-2013	<i>P. Naderi</i> , <i>S. Sharouni</i> , 'Intelligent braking system for stability enhancement of vehicle braking, using fuzzy logic controllers', <i>International Journal of Vehicle Safety</i> , ☐ CrossReff.
4)-2014	<i>P. Naderi, M.R. Alizadeh</i> , 'A novel controlling method for the superconducting magnetic energy storage system as a distributed generation source; full modelling, design and simulation', <i>International Journal of Sustainable Energy,</i> □ <i>CrossReff.</i>
5)-2014	<i>P. Naderi, Z. Salarvand</i> , 'Driving/regeneration and stability enhancement of 4WD hybrid vehicles, using multi-stage fuzzy controller', <i>International Journal of Vehicle Safety,</i> ☐ <i>CrossReff.</i>

M. Magroori, A. Farhadi, P. Naderi, 'Hydraulic anti-lock and anti-skid braking system using fuzzy controller',

F. Fallahi, P. Naderi, 'Analyzing the internal resonances and energy exchange between modes of power system considering Frequency-Energy dependence using Pseudo-Arclength and shooting algorithm', AUT Journal of Electrical Engineering, 'C' CrossReff.

Journal of Computational and Applied Research in Mechanical Engineering, 🖸 CrossReff.

6)-2016

7)-2020

#### Publications in International Conferences since 2012 1)-2015 P. Naderi, 'Eccentricity fault diagnosis studying for around rotor synchronous machine modified winding function approach combined to discrete method moding method', 30th Power System Conference, PSC 2015, Iran A. Dolatshah, P. Naderi, 'Eccentricity fault detection of a salient-pole synchronous machine using modified 2)-2016 winding function approaches and finite element method', 7th Power Electronics, Drive Systems and Technologies Conference, PEDSTC 2016, Iran P. Naderi, 'Saturable Cage-Rotor induction machine modeling by nonlinear magnetic equivalent circuit 3)-2017 method', IECON Proceedings (Industrial Electronics Conference (2016)), Italy 4)-2017 P. Naderi, 'Double-Cage Induction Machines Modeling by Modified Magnetic Equivalent Circuit', Diagnostics for Electrical Machines, Power Electronics and Drives (SDEMPED-2017), Greece 5)-2018 P. Naderi, M.R. Raiat-Roknabdi, 'Inter-Turn Short Circuit Fault Studying in Switch Reluctance Machines Using Magnetic Equivalent Circuit', 10th Power Electronics, Drive Systems, and Technologies Conference (2019), IRAN S.R. Eftekhari, S.R. Davari, P. Naderi, C. Garcia, C. Rodriguez, 'A Simple and Robust Model-Based Loss 6)-2019 Minimization Method for Direct Torque Control of Induction Motor ', ICPE 2019 - 10th International Conference on Power Electronics - ECCE Asia, Malaysia 7)-2020 M. Rostami, P. Naderi, A. Shiri, 'Analysis of Linear Primary Permanent Magnet Vernier Machine Using Finite element method', 11th Power Electronics, Drive Systems, and Technologies Conference (2020), IRAN

B. Nikmaram, A. Davarri, P. Naderi, C. Garcia, J. Rodriguez, 'Simplified Modulated Model Predictive Control of Synchronous Reluctance Motor', 11th Power Electronics, Drive Systems, and Technologies Conference

8)-2020

(2020), IRAN

## **Industrial Projects**

1)-2012 P. Naderi, 'Capacitor Optimal Placement in Distributed Network of AZNA city (Lorestan)', Lorestan

Distribution Company, Price: 20000000 R

2)-2017 P. Naderi, 'Optimal Placement of DGs in Guilan Power Network', Guilan Regional Electric Company,

Price: 720000000 R