Biography

Hossein Seifi was born in Shiraz/Iran (1957). He received his B.Sc. from Shiraz University in 1980, and his M.SC. and Ph.D. both from UMIST (U.K.) in 1987 and 1989, respectively. Since 1989, he has been with TMU (**Tarbiat Modares University**), Tehran/Iran where he is currently a full professor. During this period, he has had major contribution in developing postgraduate studies for the first time in Iran and supervising more than 90 MSc and 35 PhD students while at the same time, he has had several important responsibilities such as Head of Faculty of Engineering and Vice-chancellor in Research Affairs of the University.
In 1995 he was with ABB Network Partner (Switzerland) during sabbatical leave. He also acted as the chief advisor for the Ministry of Energy (The holding company, Tavanir Co.), Iran, and managed several national projects for the Iranian power grid. His research interests are power system cyber security, electricity planning, operation , and dynamics of power systems. He is the founder and currently the head of **Iran Power System Engineering Research Center** (IPSERC), affiliated to Tarbiat-modares University. He is the main author of the book "Electric Power System Planning, Issues, Algorithms and Solutions", published by Springer in 2011, used worldwide as a textbook for postgraduate students, as well as for the experts within electric utilities. Another book entitled as "Model Validation for Power System Frequency Analysis" is published with Springer 2019.

RESUME

1- Personal Information

Date of Birth	: 1957
Place of Birth	: Shiraz/IRAN
Nationality	: Iranian
Status	: Married
	(with two children)
Competence in Languages	: Persian, English
Email	:seifi_ho@modares.ac.ir

Tel-Fax :+98-21-88220121 , 88220212

2- Education

1-BSc, Electrical Eng., Top Graduate Student (GPA 3.93 out of 4.0), Shiraz University, IRAN,1980.

2-MSc, Electrical Eng.,Top Rank (88 out of 100), University of Manchester Institute of Science and Technology, UMIST, 1987, UK.

3- Ph.D, Electrical Eng., UMIST, 1989, UK.

Ph.D Thesis : A Self Tuning Power System Stabilizer

Supervisor : DR. F. M. Hughes

3- Sabbatical Leave

ABB Network Partner, Turgi, Switzerland, 1995 (The research work on: Real Time Voltage Stability Analysis of Large Scale Power Systems).

4- Experience

1-(1982-1985), Design Eng., Iran Electronic Industries.

2-(1989 up to now), Full Professor, Tarbiat Modares Univ., Tehran/Iran,

(Formerly Head of Power System Group; Chairman of Elec. Eng. Dept.; Dean of College of Engineering, Vice Chancellor in Research Affairs of the University and currently Head Of Iran Power System Engineering Research Center, IPSERC).

3-(1989 -1992), Consultant to the Ministry of Energy, Iran.

4-(1992-1996), Head of Energy Dept., Rah-Shahr Consulting Engrs., Iran.

5- (1997 - March 2000), Head of System Studies and Planning Dept, of Moshanir Power Engineering Consultants (The largest consulting company in the country and one of the largest in Middle East with over 800 engineers).

6-(1999 up to 2001), Advisor to the Ministry of Energy, Tavanir Co.(Power Planning Dept.), for long-term Iranian Power Grid planning.

7- (2005-2007), Member of the Regulatory Board of the Iranian Power Market.

8- (2007-2010), Member of the Reliability Council Board of the Iranian Power Grid

9- (2003 up to now), Head, Iran Power System Engineering Research Center (IPSERC).

5- National Award

1. Outstanding Professor in the Country (top 10 among nearly 10000 in all disciplines), 1999.

2. Outstanding Electric Power System Researcher in the Country, 2009.

3. IEEE (Iran Section) Lifetime Teaching Award, 2017.

6- Conference Responsibility

Chairman of Iranian Conference on Electrical Engineering (ICEE), 1995 and also Main Member of Governing Board of ICEE from 1992-2005.

7- Education and Research Interests

1- Power System Cyber Security

2- Power System Planning

3- Power System Operation

4- Power System Dynamics

8- Courses Taught

1- Power System Analysis I, II (BSc Level)

2- Electrical Machines I, II, III (BSc Level)

3- Advanced Theory of Electrical Machines (MSc Level)

4- Power System Dynamics (MSc Level)

5- Power System Operation (MSc Level)

7- Advanced Power System Operation (PhD Level)

8- Advanced Power System Dynamics (PhD Level)

9- Electric Power System Planning (PhD Level)

9- Societies

1- IEEE Senior Member,

2- CIGRE Member,

3- Member of Iran Society of Electrical Engineers.

10- Industrial Sector (Project Manager)

1- A Research Oriented Power Plant Simulator, for the "Supreme Council for Advanced Research", 1999.

2- Reactive Power Planning of Iranian Transmission Grid, for the Ministry of Energy, Tavanir Co. (under the contract of Tarbiat-modares University with Tavanir), 2001. Tavanir is the main company of the Ministry of Energy responsible for generation and transmission aspects of Iranian power grid.

3- Reactive Power Planning for Fars Utility Subtransmission System, for the Ministry of Energy, Tavanir Co. (under the contract of Tarbiat-modares University with Tavanir), 2001.

4- Reactive power planning of Khorasan Utility Subtransmission System, for the Ministry of Energy, Tavanir Co. (under the contract of Tarbiat-modares University with Tavanir), 2001.

5- Reactive Power Planning of Hormozgan Utility Subtransmission System, for the Ministry of Energy, Hormozgan Electric Utility.(under the contract of Tarbiat-modares University with Hormozgan Electric Utility), 2002.

6- Transient Stability Analysis of Hormozgan Utility Transmission System, (under the contract of Tarbiat-modares University with Hormozgan Electric Utility), 2002.

7- Capacitor Placement for Iranian Distribution Systems, for the Ministry of Energy, Tavanir Co. (under the contract of Tarbiat-modares University with Tavanir), 2002.

8- Phase Shifter Allocation for Fars Utility Grid, Under the Contract with Fars Electric Utility, 2003.

9- Transmission Expansion Planning of Iranian Power Grid for the Next 20 Years, Under the Contract of Tavanir with Tarbiat-modares University, 2003.

10- Comprehensive Planning for Fars Utility Transmission and Subtransmission System for 2005-2010, Under the Contract of Fars Electric Utility with Tarbiat-modares University, 2004.

11- Comprehensive Planning of Yazd Utility Transmission and Subtransmission System for 2005-2010, Under the Contract of Yazd Electric Utility with Tarbiat-modares University, 2004.

12- Reactive Power Planning for Zanjan Utility Transmission and Subtransmission System, Under the Contract of Tarbiat-modares University with Zanjan Electric Utility, 2004.

13- GIS Based Data Implementation of Transmission and Subtransmission Grid for Fars Electric Utility, Under the Contract of IPSERC with Fars Electric Utility, 2006.

14- Adequacy and Security Enhancement of South-east part of the Iranian Power, Grid, Under the Contract of IPSERC with Tavanir, 2007.

15- Extensive Long-range Generation, Transmission and Subtransmission Planning for Fars Utility System for 2010-2015, Under the Contract of IPSERC with Fars Electric Utility, 2008.

16- Extensive Long-range Generation Transmission and Subtransmission Planning for Tehran Utility System for 2010-2015, Under the Contract of IPSERC with Tehran Electric Utility, 2008.

17- Know-how Transfer of Long-range Power System Planning Issues to Tavanir, Under the Contract of IPSERC with Tavanir, 2008.

18-Extensive Long-range Generation Transmission and Subtransmission Planning for Hormozgan Utility System for 2010-2015, Under the Contract of IPSERC with Hormozgan Electric Utility, 2010.

19- Planning Studies for the Iranian Power Gird Multi-terminal Lines(T-off), Under the Contract of IPSERC with IGMC, 2010.

20- Developing Planning Standards for the Iranian Power Grid, Under the Contract of IPSERC with Tavanir, 2011

21- Developing Operational Standards for the Iranian Power Grid, Under the Contract of IPSERC with IGMC, 2013.

22- Developing Restoration Procedure for the Iranian Power Grid, Under the Contract of IPSERC with IGMC, 2014.

23- High Penetration DG Impacts, Issues and Solutions for the Iranian Power Grid, Under the Contract of IPSERC with Tavanir, 2015.

24-Extensive Long-range Transmission and Subtransmission Planning for Bandar Abbas and Hormoz Island for 2018, Under the Contract of IPSERC with Hormozgan Electric Utility, 2016.

25-Extensive Reactive Power Planning of Transmission and Subtransmission System of Hormozgan Electric Utility for 2018, Under the Contract of IPSERC with Hormozgan Electric Utility, 2016.

26- Primary Frequency Control Analysis and Improvement of the Iranian Power Grid, Under the Contract of IPSERC with IGMC, 2018.

27- Implementation of AGC for the Iranian Power Grid, Under the Contract of IPSERC with IGMC, 2020

28-Design and Implementation of a Cyber Security Test Bed For a Control Center State Estimator, Under the Contract of IPSERC with Tavanir, 2022.

29- Extension Development of the Cyber Security Test Bed with New EMS Applications Functions, Under the Contract with Tavanir, 2024.

30- Extensive Long-term Transmission and Subtransmission Planning for Tehran Regional Electric Company for 2032, Under the Contract for TREC, 2025

31- Extra High Voltage (EHV) 765 kV Corridors Planning for the Iranian Transmission Grid for 2036, Under the Contract with Tavanir, 2026

Meanwhile, I am supervising many national power system studies, currently in progress in IPSERC.

(As Project Manager in Moshanir Power Engineering Consultants):

32- Final Report on Energy Audit and Management of Iran Aluminum Industries (IRALCO), the Largest in the Country (with nearly 240 MW electric consumption), 1998.

33- Final Report on Switching Transient Analysis of Zanjan 400 KV Substation, 1998.

34- Final Report on Switching Transient Analysis of Karun4 400 KV Substation", 1999.

35- Final Report on Switching Transient Analysis of Abbaspoor 400 KV Substation, 1999.

36- Final Report on Feasibility Studies for 400 KV KAN Substation for HV Tehran Grid, 1998.

37- Final Report on Feasibility Studies for 230 KV MOSALLA-GHOORKHANEH 230 Cable Line, 1998.

38- Final Report on Phase I Studies for 400 KV Line (ZIARAN-KAN), 1999.

39- Final Report on Phase I Studies for 63 KV Line (Metro-Rey), 1999.

40- Power Planning Studies (Generation, Transmission and Distribution up to 63 KV) of Gheshm Island Free Zone, 2000.

41- Final Report on Switching Transient Analysis of Ziaran 400 KV Substation, 2000.

42- Final Report on Switching Transient Analysis of Park-e-Jangali 400 KV Substation, 2000.

43- Final Report on Phase I Studies for 400 KV Line(Yazd1-Yazd2), 2000.

44- Final Report on Phase I Studies for 400 KV Line(Toos-Shirvan), 2000.

45- Final Report on Phase I Studies for 230 KV Line(Saadi-Sadra), 2000

11- Thesis Supervision

11.1- PhD Level :

1- Optimum Fuzzy Based Load Shedding and Generation Reallocation (PhD Level), Finished (Supervisor).

2- Security Assessment of Power Systems, A Fuzzy Approach (PhD Level), Finished (Advisor).

3- Fuzzy Based Unit Commitment (PhD Level), Finished (Advisor).

4- New SVC Control Methods for Power Systems with Heavy Induction Motor Loads (PhD Level), Finished (Advisor).

5- Scalar Vector Control of Induction Machines (PhD Level), Finished (Advisor).

6- Optimum Voltage Stability and Profile Enhancement (PhD Level), Finished (Supervisor).

7- Nonlinear H-Infinity Control of Induction Machines (PhD Level), Finished, (Supervisor).

8- An Advanced Fossil Fuelled Power Plant Simulator (PhD Level), Finished, (Supervisor).

9- Load Management and Optimal Power flow, A Unified Approach (PhD Level), Finished (Advisor).

10- Coordinated Phase Shifters Control Strategy to Enhance Loadability (PhD Level), Finished(Advisor).

11- Reactive Power Management and Pricing in a De-regulated Environment (PhD Level), Finished (Supervisor).

12- Voltage Stability Enhancement Using Weak Area Approach (PhD Level), Finished (Advisor).

13- Coordinated Generation and Transmission Planning of Large Scale Systems (PhD Level), Finished (Supervisor).

14- Advanced HSVCS for Multi-machine Power Systems (PhD Level), Finished (Supervisor).

15- HVDC-HVAC Lange-range Planning for Large-scale Power Grids (PhD Level), Finished (Supervisor).

16- Simultaneous Bidding Strategy for Energy and Ancillary Services in Electricity Markets (PhD Level), Finished (Supervisor).

17- Electricity Retailers Optimal Strategy Determination in a Multi-option Dual Side Environment Based on Game Theory, (PhD Level), Finished (Supervisor).

18- Sensitivity Based Static Congestion Management in Electricity Markets, (PhD Level), Finished (Supervisor).

19- Maintenance Scheduling of a Restructured Power Grid in the Presence of Limited Fuel and Water Supplies, (PhD Level), Finished(Supervisor).

20. Management and Pricing of Control System Stabilizers in an Electric Power Market, (PhD Level), Finished (Supervisor).

21- Long-Term Dynamic Simulation of an Electricity Market Considering Dominant Uncertainties, (PhD Level), Finished (Supervisor).

22- Optimal Decision Making of a Virtual Power Plant in a Competitive Electricity Market in Transactions with DGs, (PhD Level), Finished(Supervisor).

23- A Dynamic Flexible Transmission Expansion Planning Algorithm, (PhD Level), Finished (Supervisor).

24- A Generalized Framework for Multi-area Combined Energy and Reserve Markets, Finished (PhD Level), (Supervisor).

25- Power System Reliability Assessment Using Evidence Theory, Finished (PhD Level), (Supervisor).

26- Power System Frequency Analysis and Control in Presence of DGs High Penetration Levels, Finished (PhD Level), (Supervisor).

27-Techno-economical Design of Special Protection Systems in a Multi Area Multi Market Power Grid, Finished (PhD Level), (Supervisor).

28-Reliability Centered Maintenance of Transmission System Equipment, (PhD Level), (Supervisor).

29- Techno-economical Primary Frequency Analysis and Design, Finished (PhD Level), (Supervisor).

30- Identification and Prevention of Cyber Attacks on State Estimators, Based on Local Bad Data Injections, Finished (PhD Level), (Supervisor).

31- Design and Development of a Local Cyber-Physical Attack Algorithm on State Estimator, (PhD Level), (Supervisor).

32- Design and Development of a Block Chain Based Secure State Estimator, (PhD Level), (Supervisor).

33- Development of a New Defense Strategy in Response to FDI Attacks in Presence of Renewable Generations, (PhD Level), (Supervisor)

34-Coordinated Cyber Physical Attack Design, Considering the Power Transmission System Components Cascading Outages, In Progress (PhD Level), (Supervisor)

35- Generation Portfolio Planning Considering Conventional and Renewable Options in Upstream and Downstream Grids, In Progress (PhD Level), (Supervisor)

11.2- MSc Level :

1- Interactive Graphical On-line Power System Diagrams Using GKS (MSc Level), Finished (Supervisor).

2- An Interactive Educational Economic Dispatch Package Using Turbo C++ (MSc Level), Finished (Supervisor).

3- Optimal Design of Universal Motors (MSc Level), Finished (Supervisor).

4- Modeling and Simulation of Multi machine Power Systems on a Personal Computer (MSc Level), Finished (Supervisor).

5- Advanced Fast Load Flow Analysis on a Personal Computer (MSc Level), Finished (Advisor).

6- Identification of Synchronous Machine Parameters Using a Personal Computer (MSc Level), Finished (Supervisor).

7- Computer Aided Design and Analysis of Power System Dynamics (MSc Level), Finished (Advisor).

8- An Interactive Multi-ِinduction Machine Simulator (MSc Level), Finished (Supervisor).

9- A Fuzzy Neural Based Power System Stabilizer (MSc Level), Finished (Supervisor).

10- A Fuzzy Based Environmentally Constrained Economic Dispatch (MSc Level), Finished (Supervisor).

11- Load Frequency Control Using Optimum Load Shedding (MSc Level), Finished (Supervisor).

12- An Expert System Based Restorative Procedure (MSc Level), Finished (Supervisor).

13- Distribution System Planning Using Genetic Algorithms (MSc Level), Finished (Advisor).

14- Quasi-Steady State Analysis of Voltage Stability (MSc Level), Finished (Supervisor).

15- Contingency Ranking for Voltage Stability Analysis Using Artificial Neural Networks (MSc Level), Finished (Supervisor).

16- A Neural Network Based Distribution Transformer Protection (MSc Level), Finished (Supervisor).

17- Genetic Algorithm Based Distribution Transformer Design (MSc Level), Finished (Supervisor).

18- Counter Measures to Reduce Force Effects in Distribution Transformers (MSc Level), Finished (Supervisor).

19- Optimum Size and Placement of Active Filters with the Aid of Genetic Algorithm(MSc Level) , Finished (Supervisor).

20- Power System Load Modeling with the Aid of Neural Networks (MSc Level), Finished (Supervisor).

21- Hydro-thermal OPF Using Continuation Method (MSc Level), Finished (Supervisor).

22- A Restoration Procedure Using Graph Theory (MSc Level), Finished (Supervisor).

23- Application of Monte-Carlo Simulation in Distribution Reliability Assessment with Varying Load (MSc Level), Finished (Advisor).

24- A Predictive Control Strategy for Induction Motors (MSc Level), Finished (Supervisor).

25- Optimal Power Flow in a De-regulated Environment Using External Equivalences (MSc Level), Finished (Supervisor).

26- A New Control Strategy for Unified Power Flow Controllers (UPFC) (MSc Level), Finished (Supervisor).

27- Neural Network Based Analysis of Electric Transients in Transmission Lines (MSc Level), Finished (Supervisor).

28- Vector Control of Linear Motors, (MSc Level), Finished (Supervisor).

29- A New Approach for Capacitor Placements in Distribution Systems, (MSc Level), Finished (Supervisor).

30- Optimum AVR and ULTC Reference Settings for Voltage Stability Enhancement, (MSc Level), Finished (Supervisor).

31- Control of Switching Capacitor with the Aid of Neural Networks, (MSc Level), Finished (Supervisor).

32- ATC Improvement Using UPFC in Southeastern Part of Iranian Power Grid, (MSc Level), Finished (Supervisor).

33- Optimal Spinning Reserve Allocation, (MSc Level), Finished (Supervisor).

34- A Robust Transmission Planning Approach in an Uncertain Environment, (MSc Level), Finished (Supervisor).

35- Anew Approach for Allocation and Sizing of Pumped-storage Plants, (MSc Level) Finished (Supervisor).

36- Distance and Overcurrent Relay Coordination Using Genetic Algorithm, (MSc Level), Finished (Supervisor).

37- Generation Expansion Planning in an Uncertain Environment, (MSc Level), Finished (Supervisor).

38- Coordinated Substation-Network System Planning, (MSc Level), Finished (Supervisor).

39- Arbitrage Analysis of Active and Reactive Powers in Electricity Markets, (MSc Level) Finished (Supervisor).

40- Gaming Theory Application in Electric Markets with Incomplete Information, (MSc Level) Finished (Supervisor).

41- Optimal Price and Quantity Determination for Retail Electric Power Contracts from Retailers Point of View, (MSc Level), In Progress(Supervisor).

42- The Analysis of Unit Commitment Approach on Social Welfare and Electricity Market Participants, (MSc Level), Finished(Supervisor).

43- Optimal Bidding Strategy of Large Customers in Electricity Markets, (MSc Level), Finished (Supervisor).

44- Power System Planning for a Deregulated Environment Considering Reliability Indices, (MSc Level), Finished (Supervisor).

45- Optimal Tuning of AGC Control Parameters Considering Transmission Effects, (MSc Level), Finished (Supervisor).

46- A New Approach for Dynamic Security Assessment, (MSc Level), Finished (Supervisor).

47- Transmission Expansion Planning Combined with Uncertain Generation Expansion Options (MSc Level), Finished (Supervisor).

48- Maintenance Scheduling with Limited Fuel Supply Conditions, (MSc Level), Finished (Supervisor).

49- An Economic Based ATC Calculation Procedure, (MSc Level), Finished (Supervisor).

50- A Voltage Based Special Protection Scheme, (MSc Level), Finished (Supervisor).

51- A Market Based Special Protection Scheme, (MSc Level), Finished (Supervisor).

52- DG Allocation and Sizing in a Micro Grid, (MSc Level), Finished (Supervisor).

53- Rotor Angle Stability Analysis and Improvement in a DG Rich Distribution System Using FACTs Devices, (MSc Level), Finished (Supervisor).

54- Multi Micro Grid Scheduling in an Energy and an Ancillary Service Market Environment, (MSc Level), Finished (Supervisor).

55- Voltage Stability Based DG Penetration Increase Using FACTS Devices, (MSc Level), Finished (Supervisor).

56- Optimal Operation of a Parking Lot Involving Hybrid Vehicles for Combined Generation of Heat and Power. Finished (MSc Level), (Supervisor).

57-Small Signal Stability Assessment of a Power Grid in Presence of High Penetration Wind Farms. Finished (MSc Level), (Supervisor)

58- Long-term Load Forecasting Using Multi-agent Systems, Finished (MSc Level), (Supervisor)

59- Simultaneous Scheduling of Electric and Thermal Load of a Micro grid in Presence of the Uncertainties of the Distributed Generations, Finished (MSc Level), (Supervisor).

60- PMU Allocation in Presence of Uncertainties for Small Signal Stability Analysis, Finished (MSc Level), (Supervisor).

61- Security-based Stochastic Scheduling of Pumped Storage and Wind Farm Generations, Finished (MSc Level), (Supervisor).

62- Voltage Stability Analysis and Improvement of a Micro Grid in Islanded and Grid Connected Modes with the Aid of Reactive Power Compensation, Finished (MSc Level), (Supervisor).

63- Harmonic and Voltage Sag Estimation Based on Using Limited Measurements, Finished (MSc Level), (Supervisor).

64- Reliability Based Operational Reserve Scheduling of a Micro Grid, Finished (MSc Level), (Supervisor).

65- Simultaneous Control of Voltage and Frequency of a Micro Grid in Presence of Nonlinear and Unbalanced Loads, Finished (MSc Level), (Supervisor).

66- Optimum Allocation and Sizing of Static Compensators for Improvement of Voltage Profile and Transmission Lines Load-abilities, Finished (MSc Level), (Supervisor).

67- Scheduling of Hydraulic Short Circuit Pumped Storage Units in an Ancillary Services Market for Isolated Power Systems, Finished (MSc Level), (Supervisor).

68- Interaction Modeling of Multiple Virtual Power Plants in a Distribution Network, Finished (MSc Level), (Supervisor).

69- A Framework for FACTs Service Pricing as an Ancillary Service in a Competitive Electricity Market, Finished (MSc Level), (Supervisor).

70- Short-Term Scheduling of a Micro grid Involving Internal Resources in a Competitive Market, Finished (MSc Level), (Supervisor).

71- Stability Improvement of a Hybrid Micro-grid based on a Smart Neuro-fuzzy Controller, Finished (MSc Level), (Supervisor).

72- A New Method for Power System Wide Dynamic Model Validation, Finished (MSc Level), (Supervisor).

73- Security Constrained Hydro/Thermal Unit Commitment Involving Demand Response Resources, Finished (MSc Level), (Supervisor).

74- Robust Dynamic State Estimator in Presence of Synchronized Phasor Measurements, Finished, (MSc Level), (Supervisor).

75- Dynamic Security Improvement Based On Economic Indices, Finished (MSc Level), (Supervisor).

76-Optimal Power Flow In Presence of STATCOM for a Restructured Environment Including Demand Response, Finished (MSc Level), (Supervisor).

77-Energy Storage Resources Planning for a Micro-grid in Presence of Renewable Energy and Demand Response, Finished (MSc Level), (Supervisor).

78-A New Cost Allocation Approach for Reserves in Automatic Generation Control (AGC) Scheme, Finished (MSc Level), (Supervisor).

79- Power System Restoration in Presence of Renewable Energy Resources, Finished, (MSc Level), (Supervisor).

80-A Techno-Economical Design of A Special Protection System (SPS) In Presence of a FACTs Devices, Finished (MSc Level), (Supervisor).

81-Design and Development of a Cyber Security Based Approach for PMU Allocation in a Power Grid, Finished (MSc Level), (Supervisor).

82-Design and Development of a Scheduler in Co-simulation Test Bed for Power System Cyber Security Analysis, Finished (MSc Level), (Supervisor).

83-Design and Development of a New Approach for Attack/Defense on AGC of a Power Grid, Finished (MSc Level), (Supervisor).

84-Uncertainty Analysis for False Injection Attacks on a Power System Electric Market, (MSc Level), (Supervisor).

85- Development of a Machine-learning Approach for Attack Detection on a State Estimator, (MSC Level), (Supervisor)

86- Development of a New Detection Scheme on a Nuclear Power Plant, (MSC Level), (Supervisor)

87- Vulnerability Assessment of Cyber-physical Power Systems Against Coordinated Attacks Based on An Improved Network Tension Index, (MSC Level), (Supervisor)

88- A New Dat-Driven Method for Detecting Cyber Attacks on Automatic Generation Control (AGC), (MSC Level), (Supervisor)

89- Development of Cyber-Physical Model of Power System Considering of Communication Network Routing, (MSC Level), (Supervisor)

90- Development of an Improved Forecasting Data-based Recovery Algorithm Following a False Data Injection Attack, (MSC Level), (Supervisor)

12- Journal Papers

(all papers in English except noted)

12.1 Iranian Journals

All Iranian Journals referred to in this resume are technically approved by a special committee of the Ministry of Higher Education

1- H. Seifi, "Basic Issues in Identification Scheme of a Self tuning Power System Stabilizer", Int. J. of Engineering, Vol.5, No.3, 1992, IRAN.

2- H. Seifi, V. Tahani, R. Hooshmand, "A Fuzzy-based Optimal Generation Rescheduling and Load Shedding Algorithm", Published in Journal of Scientia Iranica, 1996.

3- H. Seifi, R. Hooshmand, V. Tahani, "Linear Programming for Optimum Load Shedding and Generation Reallocation", Published in Esteghlal Journal (in Persian), 1997.

4- M. Abedi, A.Taher, A. K. Sedigh, H. Seifi, "Robust Controller Design for Induction Motor Dynamic Performance Improvement Using Kharitonov Approach Amir-Kabir Journal, pp. 366-376, 1997.

5- M. Ebrahimi, A. Shoulaie, H. Seifi, V. Tahani, "Compensation of Rotor Time Constant Variations in Induction Machines Using Artificial Neural Networks", Int. Journal of Engineering Science, pp. 81-96, 1997.

6- H. Seifi, K. Imhof, "Some Issues in Implementation of a Voltage Stability Function in an Energy Management System", Int. Journal of Engineering, pp. 131-139, 1998.

7- A. Akbari, H. Seifi, "Contingency Ranking for Voltage Stability Analysis Using Artificial Neural Networks", Amirkabir Journal (in Persian) pp. 175-186, 1998.

8- H. Seifi, M.M. Pedram, "Genetic Algorithm Tuning of a Fuzzy Logic Based Power System Stabilizer", Journal of Scientia Iranica, pp. 47-51, 1998 (Formerly presented in ICEE-97,See Item 29 of Conference Papers).

9- H. Seifi, M.M. Pedram, "A Self-tuned Fuzzy Set Based Power System Stabilizer with the Aid of Genetic Algorithms and Artificial Neural Networks", Iranian Journal of Science and Technology, pp. 1-10, 1999.

10- M. Ebrahimi, H. Seifi, A. Shoulaie, H.S. Sarraf, "A Software Modification Procedure for Conversion of a Scalar Controller to a Vector Type for an Induction Motor", ibid, pp 11-26, 1999.

11- A. Abedi, S.A. Taher, A. Sedigh, H. Seifi, "H-InfinityBased Robust Controller Design for Reactive Power Compensation", Esteghlal Journal, (in Persian), pp. 169-177, 1999.

12- M.R. Haghifam, A.R. Hatami, H.Seifi, " Application of Fuzzy Sets in Reliability Evaluation of Electric Distribution Systems", Amirkabir Journal (in Persian), pp 243-251, 1999.

13- A. Akhavein, H. Seifi, "A Restoration Procedure Using Graph Theory", Amirkabir Journal (in Persian), No. 44, Vol.11, 2000.

14- M. Raofat, H. Seifi, "Hydrothermal Optimal Power Flow Using Continuation Method" Int. Journal of Engineering, No. 2, Vol. 14, 2001

15- G. R. Yousefi, H. Seifi, " Electric Parameter Estimation of Induction Motor Loads Using Artificial Neural Networks", Esteghlal Journal (in Persian), No.2, Vol. 19, 2001.

16-G.R. Yousefi, H. Seifi, M.S. Ghazizadeh, M.S.Sepasian,"ReactivePower Pricing in an Open Access Environment", AMIRKABIR Journal of Technology, Amirkabir University of Technology Press(in Persian), Vol. 48, Autumn 2001, pp. 360-376.

17- G.R. Yousefi, H. Seifi, M.S. Ghazizadeh, "Reactive Power Pricing in an Open Access Environment Considering Combined Optimum Voltage Profile and Voltage Stability", ESTEGHLAL Journal of Engineering, Isfahan University of Technology Press, (In Persian), Vol.21, No.1, pp1-14, 2002.

18- S.H. Hosseini, H.Seifi, "Optimal Design of Transformers Using Genetic Algorithm", Fanni Journal, Tehran University Press (In Persian), Vol. 36, No.2, pp 155-163, Sep. 2002.

19- M.E. Hamadani, H. Ghoochehbagloo, H. Seifi, "Clustring Method Application For Control Area Determination of Voltage Stability Studies", ESTEGHLAL Journal of Engineering, Isfahan University of Technology Press, (In Persian), Vol.20, No.2, pp27-42, 2002.

20- R. Keypoor, H.Seifi, A. Yazdian, "Optimal Sizing and Allocation of Active Filters Using Genetic Algorithm", ESTEGHLAL Journal of Engineering, Isfahan University of Technology Press, (In Persian), Vol.21, No.1, pp29-42, 2002.

21- M.S. Sepasian, H. Seifi, M.R., Haghifam, A. Memariani, "Optimal Planning of Reactive Power Resources Considering Voltage Stability and Profile Improvement", AMIRKABIR Journal of Technology, Amirkabir University of Technology Press(in Persian), Spring 2002, pp. 271-282.

22- M.M. Pedram, H.Seifi, M.T. Beheshti, S. Farhangi, "Second Order Slip Mode Control Of an Induction Motor", AMIRKABIR Journal of Technology, Amirkabir University of Technology Press(in Persian), Summer 2002, pp. 426-438.

23- S.H.Hosseini, H.Seifi, M.Parsa, M.R.Omidkhah, M.Farmad, M. Ghaznavi, "A New Approach for Generation Expansion Planning Considering Transmission System", Esteghlal Journal (In Persian), Vol. 24, No. 1, pp 1-15, 2005.

24- A. Akbari, H. Seifi, A. Khaki.Sedigh, "Voltage Stability Improvement Using High Side Voltage Controller", Modares Journal of Engineering (in Persian), No.26, pp 45-58, 2007.

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