Turaj Amraee, Ph.D.

Associate Professor, Senior Member, IEEE

amraee@kntu.ac.ir
http://wp.kntu.ac.ir/amraee/
http://www.linkedin.com/in/turaj-amraee-5a2a1040/
https://orcid.org/0000-0002-5198-0067
+98(21)84062298

Education

2005 – 2010 **Ph.D. Electrical Engineering, Sharif University of Technology, Tehran, Iran in collaboration with Grenoble-INP University, Grenoble, France** in Power system Engineering.
Thesis title: *Wide Area Protection Against Volatge Instability.*
Supervisor: Prof. A.M. Ranjbar, Co-Supervisor: Prof. R. Feuillet.

2003 – 2005 **MSc. (Hons)Electrical Engineering, Sharif University of Technology, Tehran, Iran** in Power system Engineering.
Thesis title: *Under Voltage Load Shedding In Power Systems to Provide Voltage Stability.*
Supervisor: Prof. A.M. Ranjbar.

1998 – 2003 **B.Sc. Electrical Engineering, University of Shahid Beheshti, Tehran Iran.**

Work Experiences

2012 – Now **Faculty Member.** Electrical Engineering Department, K.N. Toosi University of Technology, Tehran, Iran.

2011 – 2012 **Industry Fellow.** Monenco Iran Consulting Company, MAPNA Group, Tehran, Iran.

2008 – 2010 **Researcher.** Electrical Engineering Department, Grenoble-INP University, Grenoble, France.

2007 – Now **Project Consultant.** Iran Grid Management Company, Ministry of Energy, Tehran, Iran.

Awards

2019 **The Outstanding Researcher of K.N. Toosi University of Technology, Electrical Eng. School**. Title was awarded by the University President.

2018 **The Outstanding Academic Staff of K.N. Toosi University of Technology**. Title was awarded by the University President.

The Outstanding Young Researcher of Electrical Engineering School, K.N. Toosi University of Technology. Title was awarded by the Chair of Electrical Engineering School.

Awards (continued)

2010 **Best Ph.D. Thesis Award**. Sharif University of Technology, Tehran, Iran.

Memberships

Since 2020 **Member of Editorial Board** Scientia Iranica, Sharif University of Technology, Tehran, Iran. **Senior Member, IEEE.**

Since 2011 **Technical Committee** International Iranian Power System conference, Miistry of Energy, Tehran, Iran.

2016-2017 **Technical Committee** Iranian Conference in Electrical Engineering, Tehran, Iran.

Since 2013 **Technical Committee** Technical Committee of Iranian Conference in Smart Grid.

Member of Strategic Committee Iranian Association on Smart Grid, Tehran, Iran.

Research Interests

Power System Operation and Planning — **Generation Expansion Planning, Power System Operation and Planning Under High Penetration of Renewable Resources, Low Carbon Power Systems.**

Power System Dynamics — **Power System Stability and Control, Power System Stability in Smart Grids, Oscillation Damping and Monitoring, Stability Modeling in Short Term Operational Studies, Model-Free Stability Assessment.**

Power System Protection — **Adaptive Relaying, System Protection Schemes, Wide Area Protection Schemes, UFLS and UVLS Design, Fault Detection.**

System Security Analysis — **Wide Area Monitoring and Control, PMU-Based Studies, State Estimation and Bad Data Detection, Cyber Security in Power systems, Power System Studies under Cyber Attack Concerns.**

Research Metrics

Google Scholar — **Up to : September 16, 2020** H Index: 23, Total Citations: 1970, Total Documents: 101.
https://scholar.google.com/citations?user=4LWA77AAAAAJ

Scopus — **Up to : September 16, 2020.** H Index: 20, Total Citations: 1404, Total Documents: 76.
https://www.scopus.com/authid/detail.uri?authorId=9742226500

Research Activities

Research Leader

- **Low Carbon Generation Expansion Planning under High Renewable Integration**, Electrical Engineering Department, K.N. Toosi University of Technology, Tehran, Iran, January 2020.
  Economic Load Dispatch under Renewable Integration and Fast Response Energy Storage Devices, Electrical Engineering Department, K.N. Toosi University of Technology, Tehran, Iran, October 2020.
  Semi-Adaptive Setting of Under Frequency Load Shedding Relays Considering Credible Generation Outage Scenarios, Electrical Engineering Department, K.N. Toosi University of Technology, Tehran, Iran, Sep 2018.

- **Design of Under Frequency Load Shedding Relays Considering RoCoF Relays of Distributed Generators**, Electrical Engineering Department, K.N. Toosi University of Technology, Tehran, Iran, Sep 2016.

- **Controlled partitioning strategy against unplanned islanding of power system**, Electrical Engineering Department, K.N. Toosi University of Technology, Tehran, Iran, April 2015.

- **Loss of field detection in synchronous generators**, Electrical Engineering Department, K.N. Toosi University of Technology, Tehran, Iran, Sep 2013.

- **Coordination Of Directional Over-current Relays In Active Distribution Systems**, Electrical Engineering Department, K.N. Toosi University of Technology, Tehran, Iran, Jul 2012.

Industrial Collaborations

Project Leader

- **Damping low-frequency oscillations in Iran national grid.** Contracted with Iran Grid Management Company, Ministry of Energy, Tehran, Iran. Project Fund: XXX Rials, (2019-now).

- **Developing a software for identification of low-frequency oscillations in Iran national grid.** Contracted with Iran Grid Management Company, Ministry of Energy, Tehran, Iran. Project Fund: XXX Rials, (2016-2017).
- **Proposing a power capacity expansion planning using obligation mechanism in Iran national grid.** Contracted with Iran Grid Management Company, Ministry of Energy, Tehran, Iran. Project Fund: XXX Rials, (2014-2016).

Project Supervisor

- **Design and Implementation of a Mechanism for Electric Equipment Selection and Technical Specifications to Reduce Power Losses in Iran Distribution Networks.** Contracted with Niroo Research Institute, Ministry of Energy, Tehran, Iran. Project Fund: 82,614,000 Rials, (2018).

Industrial Activities

Project Consultant

- **Developing an electricity market simulator for Iran national electricity market.** Electricity Market Department, Niroo Research Institute, Ministry of Energy, Tehran, Iran, (2014).

Industrial Activities (continued)

- **Analysis of operational events in Iran national electricity market and proposing alternatives.** Electricity Market Department, Niroo Research Institute, Ministry of Energy, Tehran, Iran, (2013).

Team Leader

- **Proposing a coordinated secondary voltage control scheme for Iran national transmission grid.** Research Deputy of Tavanir Company, Ministry of Energy, Tehran, Iran, (2012).

Principal Supervisor

- **Implementing an hour ahead energy market for Iran national electricity market.** Electricity Market Deputy of Iran Grid Management Company, Ministry of Energy, Tehran, Iran, (2011).

Principal Engineer

- **Applications of Flexible AC Transmission Systems(FACTS) in Iran national transmission grid.** Deputy of Power System Studies, Monenco Iran Consulting Engineers, MAPNA Group, Tehran, Iran, (2010).

- **System studies for a new 765kv transmission line from Kangan(Asalouyeh)-to-Tiran(Isfahan).** Deputy of Power System Studies, Monenco Iran Consulting Engineers, MAPNA Group, Tehran, Iran, (2010).

PhD Students

Supervisor

- **Mohammad-Amin Pourmoosavi** , Thesis Title: Low Carbon Generation Expansion Planning Under High Renewable Penetration with Flexibility Requirements". K.N. Toosi University of Technology University, Tehran, Iran.(From Sep 2018).
  Mojtaba Moradi-Sepahvand , Thesis Title: Hybrid HVDC/HVAC Transmission Expansion Planning Under High Renewable Integration". K.N. Toosi University of Technology University, Tehran, Iran.(From Sep 2018).
  Sadegh Kamali, Thesis Title: Transient Stability Constrained Controlled Islanding in Power Systems to Avoid Cascading Failures". K.N. Toosi University of Technology University, Tehran, Iran.(From Sep 2012, Graduated in Sep 2019).

- **Mojtaba Moradi**, Thesis Title: Transmission Expansion Planning Under High Penetration of Renewable Resources, KN Toosi University of Technology, Tehran, Iran(Since Sep 2018).

- **Mohammad-Amin Pourmousavi**, Thesis Title: Generation Expansion Planning In Low Carbon Economy, KN Toosi University of Technology, Tehran, Iran(Since Sep 2018).

- **Hossein Saberi**, Thesis Title: Transient Stability Constrained Unit Commitment in Low Inertia Power Systems, KN Toosi University of Technology, Tehran, Iran(Since Sep 2015).

- **Mehrnossh Vatani**, Thesis Title: Passive detection of active distribution islanding using a modified RoCoF relay". Science and Research Branch, Islamic Azad University, Tehran, Iran.(From Sep 2012, Graduated in Sep 2016).

PhD Students (continued)

Advisor

- **Hamid Hassanvand**, Thesis Title: Coordinated design of PSS and TCSC to mitigate inter-area oscillations. Science and Research Branch, Islamic Azad University, Tehran, Iran. (From Sep 2012, Graduated in June 2015).

- **Rasoul Asghari**, Thesis Title: Delay Scheduled Controller for Damping Inter-Area Low Frequency Oscillation. Science and Research Branch, Islamic Azad University, Tehran, Iran. (From Sep 2014, Graduated in June 2019).

MSc Students

Supervisor

- **E. Nadermahmoudi**, "Very Short Term Economic Dispatch using Flexible Ramp Reserve for Handling Wind Uncertainty ". KN Toosi University of Technology, Tehran, Iran(Graduated: Feb 2020)

- **M. Qorbani**, "Long Term Resilience-Oriented Transmission Expansion Planning to Minimize Power Blackout Impacts ". KN Toosi University of Technology, Tehran, Iran(Graduated: Feb 2020)

- **H. Akbarzadeh**, "Carbon Constrained Power Generation Expansion Planning". KN Toosi University of Technology, Tehran, Iran(Graduated: Feb 2020)

- **S. Saberi Oskouee**, "Frequency Stability Constrained Unit Commitment in presence of Low Inertia Renewable Resources ". KN Toosi University of Technology, Tehran, Iran(Graduated: Feb 2020)

- **Amir. Darbandsari**, "Adaptive Under Frequency Load Shedding In Low Inertia Power System Using Smart Loads ". KN Toosi University of Technology, Tehran, Iran(Graduated: Sep 2019)

- **S.A. Rshidaee**, "Reliability Constrained Generation Expansion Planning Under Environmental Constraints ". KN Toosi University of Technology, Tehran, Iran(Graduated: Feb 2019)

- **H. Shayan**, "Cyber Security Constrained Unit Commitment in Power Systems Against Load Redistribution Attacks". KN Toosi University of Technology, Tehran, Iran(Graduated: Jan 2019)

- **S. Banijamali**, "Semi Adaptive Under Frequency Load shedding Considering Credible Generation Outage Scenarios". KN Toosi University of Technology, Tehran, Iran(Graduated: Sep 2019)

- **M. Almousavi**, "Optimal Setting of MultiBand Power System Stabilizer for Damping Lowe Frequency Interarea Oscillations". KN Toosi University of Technology, Tehran, Iran(Graduated: Sep 2018)

- **S. Naghdalian**, "Unit commitment under uncertainty of wind power penetration". KN Toosi University of Technology, Tehran, Iran(Graduated: Feb 2018)

MSc Students (continued)

- **F. Teymouri**, "Towards controlled islanding for enhancing power grid resilience considering frequency stability constraints". KN Toosi University of Technology, Tehran, Iran(Graduated : Sep 2017)

- **Y. Mohammadnian**, "High Impedance Fault detection in active distribution system using support vector machine". KN Toosi University of Technology, Tehran, Iran(Graduated: Oct 2016)

- **M. Khosravi**, "Wide area damping of low-frequency oscillation damping using modern PSS4Bs". KN Toosi University of Technology, Tehran, Iran(Graduated: Oct 2016)

- **K. Shomalzadeh** "Dynamic Power System Model Reduction Using Balanced Truncation Method". KN Toosi University of Technology, Tehran, Iran(Graduated: Nov 2016)

- **M. Ghaderi**, "Under Frequency Load Shedding under the uncertainty of generation outages". KN Toosi University of Technology, Tehran, Iran(Graduated: Oct 2015)

- **B. Safari**, "Small signal stability constrained optimal power flow using modal analysis". KN Toosi University of Technology, Tehran, Iran(Graduated: Oct 2015)

- **H. Abdolhossein**, "Power system controlled islanding using optimization technique and slow coherency". KN Toosi University of Technology, Tehran, Iran(Graduated: Oct 2014)

- **H. Golzari**, "Identification of low-frequency oscillation using stochastic subspace identification method". KN Toosi University of Technology, Tehran, Iran(Graduated: Nov 2014)

- **S.M.T Mortezaee**, "Under-Voltage Load Shedding using point estimate method with considering load uncertainty". KN Toosi University of Technology, Tehran, Iran(Graduated: Sep 2014)

- **M. Mahmoudi**, "Coordinated Secondary voltage control algorithm in smart transmission grids". KN Toosi University of Technology, Tehran, Iran(Graduated: Sep 2014)

- **M. Alizadeh**, "Adaptive scheme for local prediction of post-contingency power system frequency". Science and Research Branch, Azad University, Tehran, Iran(Graduated: Sep 2013)

- **R. Ardeshiri**, "Transient Stability Constrained OPF using Imperialistic Competition Algorithm". Science and Research Branch, Azad University, Tehran, Iran(Graduated: Nov 2013)

- **S. Ranjbar**, "Transient Stability prediction using decision tree technique". Science and Research Branch, Azad University, Tehran, Iran(Graduated: Sep 2012)

MSc Students (continued)

- **M. Eskandari**, "Estimation of Critical Clearing Time in Power System using Support Vector Regressor ". Science and Research Branch, Azad University, Tehran, Iran(Graduated: Sep 2012)

- **O. Khalili**, "Optimal selection of pilot points for secondary voltage control using PSO algorithm". Science and Research Branch, Azad University, Tehran, Iran(Graduated: Sep 2011)

Advisor

- **S. Baghali**, "Optimal Droop Control In Microgrids Under Renewable Uncertainties ". KN Toosi University of Technology, Tehran, Iran(Graduated: Feb 2019)

- **D. Rajabi**, "Optimal Power Generation Management in Microgrids Considering Renewable Uncertainty". KN Toosi University of Technology, Tehran, Iran(Graduated: Feb 2019)

- **P. Rezaei**, "Generation Expansion Planning Considering Load Uncertainty". Science and Research Branch, KN Toosi University of Technology, Tehran, Iran(Graduated: Sep 2015)

Speeches, Presentations, Workshops

Speech

- **Oct 2017**" Identification and Monitoring of Low-frequency Oscillations in Iran National Grid Using a developed WAMS-based Module". Niroo Research Institute, Ministry of Energy, Tehran, Iran, Oct 2017.
- **Sep 2016**, " A new mechanism for expansion of installed generation capacity using obligation algorithm to be implemented in Iran national electricity market". Tavanir Co, Ministry of Energy, Tehran, Iran, Sep 2016.
- **Oct 2015**, "Proposing a capacity market for Iran national electricity market". Iran Grid Management Company, Ministry of Energy, Tehran, Iran, Oct 2015.
- **Oct 2013**, "Introduction to Applications of Phasor Measurement Units in Power Systems". KN Toosi University of Technology, Smart Grid Seminar, Tehran, Iran, Oct 2013.
- **Sep 2007**, " Introduction to ancillary services in the world and Iran national electricity markets". Iran Grid Management Company" Ministry of Energy, Tehran, Iran, Sep 2007.

Workshop

- **Oct 2014**, "Performing long-term power system studies using General Algebraic Modeling Software(GAMS)". KN Toosi University of Technology, Tehran, Iran, Oct 2014.

Presentation

- **Sep 2012**, " Introduction to System Protection Schemes in Power Systems ". Monenco Iran Consulting Engineers, MAPNA Group, Tehran, Iran, Sep 2012.

- **Sep 2011**, " Feasibility Study for Implementing a Hour Ahead Electricity Market in Iran National Grid ". Iran Grid Management Company, Ministry of Energy, Tehran, Iran, Sep 2011.

Speeches, Presentations, Workshops (continued)

- **June 2010**, " Wide Area Protection against Voltage Instability ". Sharif University of Technology, Tehran, Iran, June 2010.

Courses Taught

Graduate Courses
- **Power System Planning • Power System Operation • Power System Operation • Power System Stability and Control**

Under Graduate Courses
- **Electric circuit Analysis • Power System Analysis • Protective Relaying • Engineering Electromagnetics**

Research Publications

Journal Articles

1. Saberi, H., **Amraee, T.**, Zhang, C., & Dong, Z. Y. (n.d.). A benders-decomposition-based transient-stability-constrained unit scheduling model utilizing cutset energy function method. *International Journal of Electrical Power & Energy Systems*, *124*, 106338.
2. Alaee, P. & Amraee, T. (2020). Optimal coordination of directional overcurrent relays in meshed active distribution network using imperialistic competition algorithm. *Journal of Modern Power Systems and Clean Energy*, 1–7.
3. Kamali, S., Amraee, T., & Fotuhi-Firuzabad, M. (2020). Controlled islanding for enhancing grid resilience against power system blackout. *IEEE Transactions on Power Delivery*, 1–1.
4. Moradi Sepahvand, M. & Amraee, T. (2020). Hybrid ac/dc transmission expansion planning considering hvac to hvdc conversion under renewable penetration. *IEEE Transactions on Power Systems*, 1–1.
5. Nadermahmoudi, E., **Amraee, T.**, & Oskouee, S. S. (2020). Stochastic very short-term economic dispatch for wind power operation using flexible ramp reserve. *International Transactions on Electrical Energy Systems*, *30*(8), e12454.
6. Saberi, H., **Amraee, T.**, Zhang, C., & Dong, Z. Y. (2020). A heuristic benders-decomposition-based algorithm for transient stability constrained optimal power flow. *Electric Power Systems Research*, *185*, 106380.
7. Shayan, H. & **Amraee, T.** (2019, November). Network constrained unit commitment under cyber attacks driven overloads. *IEEE Transactions on Smart Grid*, *10*(6), 6449–6460. doi:10.1109/TSG.2019.2904873
8. Banijamali, S. & **Amraee, T.** (2019, June). Semi-adaptive setting of under frequency load shedding relays considering credible generation outage scenarios. *IEEE Transactions on Power Delivery*, *34*(3), 1098–1108. doi:10.1109/TPWRD.2018.2884089
9. Teymouri, F. & **Amraee, T.** (2019, February). An milp formulation for controlled islanding coordinated with under frequeny load shedding plan. *Electric Power Systems Research*, *107*, 240–249. doi:10.1016/j.epsr.2019.02.009
10. Alizadeh, M., **Amraee, T.**, & Jaefari, M. (2019). Optimal setting for under frequency load shedding relays using mixed integer linear programming. *Journal of Iranian Association of Electrical and Electronics Engineers*, *15*(4), 115–121.

11 Javadi, M., **Amraee**, **T.**, & Capitanescu, F. (2019). Look ahead dynamic security-constrained economic dispatch considering frequency stability and smart loads. *International Journal of Electrical Power and Energy Systems*, *108*, 240–251. doi:10.1016/j.ijepes.2019.01.013

12 Naghdalian, S., **Amraee**, **T.**, & Kamali, S. (2019). Linear daily uc model to improve the transient stability of power system. *IET Generation, Transmission Distribution*, *13*(13), 2877–2888. doi:10.1049/iet-gtd.2018.5102

13 Naghdalian, S., **Amraee**, **T.**, Kamali, S., & Capitanescu, F. (2019). Stochastic network constrained unit commitment to determine flexible ramp reserve for handling wind power and demand uncertainties. *IEEE Transactions on Industrial Informatics*, 1–1. doi:10.1109/TII.2019.2944234

14 Rasoulpour, M., **Amraee**, **T.**, & Khaki Sedigh, A. (2019). A relay logic for total and partial loss of excitation protection in synchronous generators. *IEEE Transactions on Power Delivery*, 1–1. doi:10.1109/TPWRD.2019.2945259

15 Teymouri, F., **Amraee**, **T.**, Saberi, H., & Capitanescu, F. (2019). Toward controlled islanding for enhancing power grid resilience considering frequency stability constraints. *IEEE Transactions on Smart Grid*, *10*(2), 1735–1746. doi:10.1109/TSG.2017.2777142

16 **Amraee**, **T.**, Darebaghi, M., Soroudi, A., & Keane, A. (2018). Probabilistic under frequency load shedding considering rocof relays of distributed generators. *IEEE Transactions on Power Systems*, *33*(4), 3587–3598. doi:10.1109/TPWRS.2017.2787861

17 **Amraee**, **T.**, Mohammadnian, Y., & Soroudi, A. (2018). Fault detection in distribution networks in presence of distributed generations using a data mining driven wavelet transform. *IET Smart Grid*. doi:10.1049/iet-stg.2018.0158

18 **Amraee**, **T.** & Soroudi, A. (2018). Voltage stability constrained opf using a bilevel programming technique. *Journal of Iranian Association of Electrical and Electronics Engineers*, *14*(4), 103–109.

19 Asghari, R., Mozafari, B., Naderi, M., **Amraee**, **T.**, Nurmanova, V., & Bagheri, M. (2018). A novel method to design delay-scheduled controllers for damping inter-area oscillations. *IEEE Access*, *6*, 71932–71946. doi:10.1109/ACCESS.2018.2878038

20 Asghari, R., Mozafari, S., & Amraee, T. (2018). Delay-scheduled controllers for inter-area oscillations considering time delays. *International Journal of Engineering, Transactions B: Applications*, *31*(11), 1852–1861. doi:10.5829/ije.2018.31.11b.08

21 Ghaljehei, M., Ahmadian, A., Golkar, M., **Amraee**, **T.**, & Elkamel, A. (2018). Stochastic scuc considering compressed air energy storage and wind power generation: a techno-economic approach with static voltage stability analysis. *International Journal of Electrical Power and Energy Systems*, *100*, 489–507. doi:10.1016/j.ijepes.2018.02.046

22 Jafari, E., Soleymani, S., Mozafari, B., & **Amraee**, **T.** (2018a). Scenario-based stochastic optimal operation of wind/pv/fc/chp/boiler/tidal/energy storage system considering dr programs and uncertainties. *Energy, Sustainability and Society*, *8*(1), 2. doi:10.1186/s13705-017-0142-z

23 Jafari, E., Soleymani, S., Mozafari, B., & **Amraee**, **T.** (2018b). Optimal operation of a micro-grid containing energy resources and demand response program. *International Journal of Environmental Science and Technology*, *15*(10), 2169–2182. doi:10.1007/s13762-017-1525-6

24 Javadi, M. & **Amraee**, **T.** (2018a). Mixed integer linear formulation for undervoltage load shedding to provide voltage stability. *IET Generation, Transmission and Distribution*, *12*(9), 2095–2104. doi:10.1049/iet-gtd.2017.1118

25 Kamali, S., **Amraee**, **T.**, & Capitanescu, F. (2018). Controlled network splitting considering transient stability constraints. *IET Generation, Transmission & Distribution*, *12*(21), 5639–5648. doi:10.1049/iet-gtd.2018.5287

26 Khosravi-Charmi, M. & **Amraee**, **T.** (2018). Wide area damping of electromechanical low frequency oscillations using phasor measurement data. *International Journal of Electrical Power and Energy Systems*, *99*, 183–191. doi:10.1016/j.ijepes.2018.01.014

27 Mohammadi, M., Soleymani, S., Niknam, T., & **Amraee**, **T.** (2018a). Distribution automation planning and operation considering optimized switch placement and feeder reconfiguration strategies from reliability enhancement perspective. *Journal of Intelligent and Fuzzy Systems*, *35*(3), 3493–3506. doi:10.3233/JIFS-17939

28 Mohammadi, M., Soleymani, S., Niknam, T., & **Amraee**, **T.** (2018b). Stochastic multi-objective distribution automation strategies from reliability enhancement point of view in the presence of plug in electric vehicles. *Journal of Intelligent & Fuzzy Systems*, (Preprint), 1–13. doi:10.3233/JIFS-171289

29 Rashidaee, S., **Amraee**, **T.**, & Fotuhi-Firuzabad, M. (2018). A linear model for dynamic generation expansion planning considering loss of load probability. *IEEE Transactions on Power Systems*, *33*(6), 6924–6934. doi:10.1109/TPWRS.2018.2850822

30 **Amraee**, **T.** & Saberi, H. (2017). Controlled islanding using transmission switching and load shedding for enhancing power grid resilience. *International Journal of Electrical Power and Energy Systems*, *91*, 135–143. doi:10.1016/j.ijepes.2017.01.029

31 Darebaghi, M. & **Amraee**, **T.** (2017). Dynamic multi-stage under frequency load shedding considering uncertainty of generation loss. *IET Generation, Transmission and Distribution*, *11*(13), 3202–3209. doi:10.1049/iet-gtd.2016.0751

32 Kamali, S. & **Amraee**, **T.** (2017). Blackout prediction in interconnected electric energy systems considering generation re-dispatch and energy curtailment. *Applied Energy*, *187*, 50–61. doi:10.1016/j.apenergy.2016.11.040

33 Saberi, H. & **Amraee**, **T.** (2017). Coordination of directional over-current relays in active distribution networks using generalised benders decomposition. *IET Generation, Transmission and Distribution*, *11*(16), 4078–4086. doi:10.1049/iet-gtd.2017.0434

34 Saberi, H., Monsef, H., & **Amraee**, **T.** (2017). Probabilistic congestion driven network expansion planning using point estimate technique. *IET Generation, Transmission and Distribution*, *11*(17), 4202–4211. doi:10.1049/iet-gtd.2016.2065

35 Ardeshiri Lajimi, R. & **Amraee**, **T.** (2016). A two stage model for rotor angle transient stability constrained optimal power flow. *International Journal of Electrical Power and Energy Systems*, *76*, 82–89. doi:10.1016/j.ijepes.2015.07.041

36 Hasanvand, H., Arvan, M., Mozafari, B., & **Amraee**, **T.** (2016). Coordinated design of pss and tcsc to mitigate interarea oscillations. *International Journal of Electrical Power and Energy Systems*, *78*, 194–206. doi:10.1016/j.ijepes.2015.11.097

37 Kaffashan, I., Mirali Mortezaee, S., & **Amraee**, **T.** (2016). A robust undervoltage load shedding scheme against voltage instability. *Turkish Journal of Electrical Engineering and Computer Sciences*, *24*(4), 3309–3320. doi:10.3906/elk-1411-182

38 Kamali, S., **Amraee**, **T.**, & Bathaee, S. (2016). Prediction of unplanned islanding using an energy based strategy. *IET Generation, Transmission and Distribution*, *10*(1), 183–191. doi:10.1049/iet-gtd.2015.0639

39 Abolhasani Zarjoo, M., **Amraee**, **T.**, & Mozafari, B. (2015). Control of wind turbine with double fed induction generator to track for maximum wind power. *Journal of Iranian Association of Electrical and Electronics Engineers*, *8*(4), 43–53.

40 Hasanvand, H., Mozafari, B., Arvan, M., & **Amraee**, **T.** (2015). Application of polynomial control to design a robust oscillation-damping controller in a multimachine power system. *ISA Transactions*, *59*, 343–353. doi:10.1016/j.isatra.2015.09.005

41 Kaffashan, I. & **Amraee**, **T.** (2015). Probabilistic undervoltage load shedding using point estimate method. *IET Generation, Transmission and Distribution*, *9*(15), 2234–2244. doi:10.1049/iet-gtd.2015.0698

42 Sarhadi, S. & **Amraee**, **T.** (2015). Robust dynamic network expansion planning considering load uncertainty. *International Journal of Electrical Power and Energy Systems*, *71*, 140–150. doi:10.1016/j.ijepes.2015.02.043

43 Vatani, M., **Amraee**, **T.**, Ranjbar, A., & Mozafari, B. (2015). Relay logic for islanding detection in active distribution systems. *IET Generation, Transmission and Distribution*, *9*(12), 1254–1263. doi:10.1049/iet-gtd.2014.0373

44 Alizadeh, M. & **Amraee**, **T.** (2014). Adaptive scheme for local prediction of post-contingency power system frequency. *Electric Power Systems Research*, *107*, 240–249. doi:10.1016/j.epsr.2013.10.014

45 Vatani, M., **Amraee**, **T.**, & Soltani, I. (2014). Comparative of islanding detection passive methods for distributed generation application. *Int. J. Innov. Sci. Res*, *8*, 234–241.

46 **Amraee**, **T.** (2013). Loss-of-field detection in synchronous generators using decision tree technique. *IET Generation, Transmission and Distribution*, *7*(9), 943–954. doi:10.1049/iet-gtd.2013.0138

47 **Amraee**, **T.** & Ranjbar, S. (2013). Transient instability prediction using decision tree technique. *IEEE Transactions on Power Systems*, *28*(3), 3028–3037. doi:10.1109/TPWRS.2013.2238684

48 Shiroei, M., Ranjbar, A., & **Amraee**, **T.** (2013). A functional model predictive control approach for power system load frequency control considering generation rate constraint. *International Transactions on Electrical Energy Systems*, *23*(2), 214–229. doi:10.1002/etep.653

49 Soroudi, A. & **Amraee**, **T.** (2013). Decision making under uncertainty in energy systems: state of the art. *Renewable and Sustainable Energy Reviews*, *28*, 376–384. doi:10.1016/j.rser.2013.08.039

50 **Amraee**, **T.** (2012). Coordination of directional overcurrent relays using seeker algorithm. *IEEE Transactions on Power Delivery*, *27*(3), 1415–1422. doi:10.1109/TPWRD.2012.2190107

51 **Amraee**, **T.**, Soroudi, A., & Ranjbar, A. (2012). Probabilistic determination of pilot points for zonal voltage control. *IET Generation, Transmission and Distribution*, *6*(1), 1–10. doi:10.1049/iet-gtd.2011.0334

52 **Amraee**, **T.**, Ranjbar, A., & Feuillet, R. (2011). Adaptive under-voltage load shedding scheme using model predictive control. *Electric Power Systems Research*, *81*(7), 1507–1513. doi:10.1016/j.epsr.2011.03.006

53 Hajian, M., Ranjbar, A., **Amraee**, **T.**, & Mozafari, B. (2011). Optimal placement of pmus to maintain network observability using a modified bpso algorithm. *International Journal of Electrical Power and Energy Systems*, *33*(1), 28–34. doi:10.1016/j.ijepes.2010.08.007

54 **Amraee**, **T.**, Ranjbar, A., & Feuillet, R. (2010). Immune-based selection of pilot nodes for secondary voltage control. *European Transactions on Electrical Power*, *20*(7), 938–951. doi:10.1002/etep.377

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