Educational, research and executive information

Personal information:

Name: Reza
Family name: Eslami
Date of birth: 18 June 1988
Ph.D., Associate Professor of Electrical Engineering (power system)
Department of Electrical Engineering, Tabriz University of Technology (SUT), Tabriz, Iran.

Education:

- **PhD:**
  Brilliant student
  Electrical Engineering - Power majoring, Amirkabir University of Technology, 2012 to 2017
  GPA of courses: 18.71
  Thesis title: Fault detection in AC-DC microgrids adaptive protection in the presence of solid state transformers
  Thesis quality: excellent

- **MSc**
  Brilliant student
  Electrical Engineering - Power majoring, Amirkabir University of Technology, 2010 to 2012
  GPA of courses: 18.01
  Thesis title: Multi-objective recofiguration of distribution networks considering loads uncertainties
  Thesis grade: 19.5

- **BSc**
  Brilliant student announced by national organization of educational testing
  Electrical Engineering - Power and Control majoring, Amirkabir University of Technology, 2006 to 2010
  GPA of courses: 17.67
  Thesis title: Calculation of distribution network losses considering the aging of conductors
  Thesis grade: 20

Some scientific honors:

- Member of the National Elite Foundation
- Cooperation in carrying out several industrial projects
- Collaboration in several academic research projects
- Cooperation in carrying out several projects of defense and military industries
- Translation of the book titled “Energy Storage for Power System Planning and Operation”
- Writing several book chapters
- Honorable candidate in national entrance exam in 2016
- The brilliant talent student of the BSc
- Studying simultaneously in two majors of electrical engineering (power and control)
- The first rank in the control majoring and the second rank in the power majoring in the undergraduate courses
- The brilliant talent student of the MSc
- The brilliant talent student of the PhD

Some scientific articles:

1. Ali Habibi Rad, **R. Eslami**, "A New Demand Response Policy Using a Fuzzy Observer in Smart Electric Grids", 15th International Smart Grids Conference (SGC 2025), 2025.
2. Mehran Alizadeh, **R. Eslami**, Amirreza Salmani, "Microgrid Operation Optimization Using Optimal Locating and Sizing of PHEV Parking Lots Considering Various Uncertainties", AUT Journal of Electrical Engineering, 2025.
3. Mehrab Shahbazi, Morteza Zare, **R. Eslami**, "Technical and economic evaluation of the construction of a 100 kW grid-connected power plant in Tabriz city using PVsyst and RETScreen softwares", 10th International Conference on Technology and Energy Management, 2025.
4. **R. Eslami**, "Aggregator Design for Optimal Management of Charging and Discharging of Electric Vehicles in the Smart Grid Context", AUT Journal of Electrical Engineering, 2024.
5. S. Derakhshani Pour, **R. Eslami**, "Efficient Demand Response and Robust Voltage Control of an Islanded DC Microgrid Under Variations in Load and Supply", Journal of Applied Research in Electrical Engineering, 2024.
6. **R. Eslami**, "Load shedding of the islanded power network in order to stabilize the frequency and reduce power outages in the presence of renewable energy resources", Journal of Green Energy Research and Innovation, 2024.

7. A. Heydari, **R. Eslami**, "A Cyber Secured optimal scheduling framework for AC microgrids based on dragonfly optimization and deep learning", Tabriz Journal of Electrical Engineering (TJEE), 2024.
8. A. Hosseini, **R. Eslami**, "Presenting a New Pilot Protection Plan for Transmission Lines in Green Energy Networks with Renewable Energy Sources Such as Wind Turbines", Technovations of Electrical Engineering in Green Energy System, 2024.
9. M. Bagheri, **R. Eslami**, "Reactive power pricing to improve technical performance and operation of the distribution network", Iranian Electric Industry Journal of Quality and Productivity, 2024.
10. A. Hosseini, **R. Eslami**, "Presenting a scheme for ownership of energy storage between multiple subscribers in a smart grid", 9th International Conference on Technology and Energy Management, 2024.
11. S. A. Mehraban, **R. Eslami**, "Multi-microgrids Energy Management in Power Transmission Mode Considering Different Uncertainties", Electric Power Systems Research, 2023.
12. **R. Eslami**, M. Bagheri, "Maximizing economic host capacity related to distributed generation and improving power system performance", AUT Journal of Electrical Engineering, 2023.
13. A. Babazadeh, **R. Eslami**, "Optimal planning of PHEV taxi charging by considering variable prices with the time", 2th conference on electricity, mechanics, aerospace, computer and engineering sciences, 2023.
14. A. Hosseini, **R. Eslami**, "Transmission network fault location using the pilot impedance", 28th International Electrical Power Distribution Conference, 2023.
15. **R. Eslami**, S.A. Hosseini, "A Comprehensive Method for Fault Detection in AC/DC Hybrid Microgrid", Electric Power Components and Systems, 2022.
16. **R. Eslami**, "A new multi-objective load shedding method to reduce power outages and frequency stability in the islanded microgrid", Iranian Electric Industry Journal of Quality and Productivity, 2022.
17. **R. Eslami**, S.A. Hosseini, "A new method for optimizing the configuration of distribution network lines by an improved optimization algorithm in the presence of DGs", Journal of Iranian Association of Electrical and Electronics Engineers, 2022.
18. M. Ghahramani, **R. Eslami**, "Optimal planning of electric vehicles parking in the smart energy microgrid", The 9th Iranian Conference on Renewable Energy & Distributed Generation, 2022.
19. **R. Eslami**, "Effective communication-based overcurrent protection for distribution networks equipped with distributed generation resources", The 16th International conference on Protection and Automation of Power System (IPAPS 2022), 2022.
20. S. Derakhshani Pour, **R. Eslami**, M. Marzband, S. Shoja, "Nonlinear Robust Voltage Regulation and Balanced Demand Response of an Islanded DC Microgrid", 11th Smart Grid Conference (SGC), 2021.
21. **R. Eslami**, "Using energy storage systems with the aim of minimizing the operation cost of smart networks", 5th National Conferences Application of Novel Technologies in Engineering Sciences, 2021.
22. **R. Eslami**, "Designing a smart LED street lighting system for a smart city with a web-based management system", 5th National Conferences Application of Novel Technologies in Engineering Sciences, 2021.

23. H. Roueen, **R. Eslami**, "Locating and determining the optimal capacity of CHPs in the distribution network and examining its positive economic effects", 5th National Conferences Application of Novel Technologies in Engineering Sciences, 2021.
24. **R. Eslami**, S.A. Hosseini, "Presenting new triple methods for fault detection, location, and its identification in DC microgrid", Iranian Journal of Science and Technology-Transactions of Electrical Engineering, 2020.
25. **R. Eslami**, "Accurate Determination of Optimal Amount of Charger Capacitors for PHEVs", AUT Journal of Electrical Engineering, 2020.
26. **R. Eslami**, H. Arlanizadeh, "Optimal Placement and Sizing for Fault Current Limiters in the Transmission Network Using the Hybrid Optimization Algorithm of Particle Swarm and Gravity Search", Journal of Advanced Defence Science and Technology, 2020.
27. **R. Eslami**, S.A. Hosseini, "Determining the appropriate time to repair and maintenance of various types of static and digital relays in the network", The 14th International conference on Protection and Automation of Power System (IPAPS 2020), 2020.
28. **R. Eslami**, H. Nafisi, S.A. Hosseini, "Presenting a new method for charging and discharging PHEVs for improving in electrical parameters of the network", Iranian Electric Industry Journal of Quality and Productivity, 2019.
29. **R. Eslami**, "Economic Determination of Electric Vehicle Charging Transformers", International Conference on Renewable Energies and Distributed Generation of Iran, 2019.
30. **R. Eslami**, S.A. Hosseini, A. A. Amir Jalili, "Evaluation and verification of a new method for fault detection in microgrids considering the uncertainties of their topology", The 13th International conference on Protection and Automation of Power System (IPAPS 2019), 2019.
31. **R. Eslami**, "Time Series Clustering to Share Different Consumption Patterns From Feeder Load", International Conference on Renewable Energies and Distributed Generation of Iran, 2019.
32. S.A. Hosseini, **R. Eslami**, H. Askarian, "Presenting a new method in order to coordinate the protection of microgrids by considering the structural and functional uncertainties", The 13th International conference on Protection and Automation of Power System (IPAPS 2019), 2019.
33. S.A. Hosseini, H. Askarian, S. H. H. Sadeghi, **R. Eslami**, "Improving Adaptive Protection to Reduce Sensitivity to Uncertainties Which Affect Protection Coordination of Microgrids", Iranian Journal of Science and Technology-Transactions of Electrical Engineering, 2018.
34. S.A. Hosseini, H. Askarian, S. H. H. Sadeghi, **R. Eslami**, F. Razavi, "A Decision-Tree Scheme for Responding to Uncertainties in Microgrid Protection Coordination", Electric Power Components and Systems, 2018.
35. S.A. Hosseini, **R. Eslami**, M. Karami, "Determining the optimal performance mode of distributed generations to improve the ECOST index by considering the hourly load curve", 2th National Conference in Engineering and Technology of Flying robots, 2018.
36. **R. Eslami**, S.A. Hosseini, M. H. Soveyzi, "The performance of distance relays against the effects of placing parallel FACTS devices in the network", 2th National Conference in Engineering and Technology of Flying robots, 2018.
37. **R. Eslami**, S. H. H. Sadeghi, H. Askarian, A. Nasiri, "A Novel Method for Fault Detection in Future Renewable Electric Energy Delivery and Management Microgrids,

Considering Uncertainties in Network Topology", Electric Power Components and Systems, 2017.

38. **R. Eslami**, S. H. H. Sadeghi, H. Askarian, "Fault detection using positive, negative and zero sequences of the current and voltage of different points of microgrids, considering uncertainties of the topology of the microgrid", Iranian Electric Industry Journal of Quality and Productivity, 2017.
39. **R. Eslami**, S. H. H. Sadeghi, H. Askarian, "A Probabilistic Approach for the Evaluation of Fault Detection Schemes in Microgrids", Engineering, Technology & Applied Science Research., 2017
40. **R. Eslami**, S.A. Hosseini, "A Multi-Objective Approach for Improving Technical Factors of Distribution Networks Considering Uncertainties in Loads and Wind Turbines", Indian Journal of Science and Technology, 2016.
41. S.A. Hosseini, **R. Eslami**, B. Vahidi, H. Askarian, S. H. H. Sadeghi, K. Mohseni, "Installing distributed generation units and capacitors simultaneously in a distribution system considering economic issues", Journal of Renewable and Sustainable Energy, 2014.
42. **R. Eslami**, H. Askarian, A. Mahmudi, S. H. Hosseinian, "A New Method for Measurement of Harmonic Groups Using Wavelet-Packet-Transform", Journal of American Science, 2012.
43. **R. Eslami**, H. Askarian, E. Azad, K. Mazlumi, "An Improved Distribution Network Reconfiguration Method for Loss Reduction Considering Stochastic Nature of Wind Turbines and Loads", Archives Des Sciences, 2012.
44. **R. Eslami**, H. Askarian, E. Azad, K. Mazlumi, "Using an improved method in reconfiguration of smart grids considering the stochastic model for loads", 2th conference of smart electrical networks, 2012.

Research projects:

1. **The technical study and the grid connection plan for a 20 MW solar power plant.**
   Executor: Reza Eslami and Morteza Zare Oskooyi, Sahand university of technology.

2. **Design and manufacture of charge and discharge management system of the battery bank.**
   Executor: Reza Eslami, National Elites Fondation.

3. **Protection coordination of future distribution networks using wide telecommunication platforms.**
   Executor: Reza Eslami, Sahand university of technology.

4. **Selection of conductors, capacitors and reconfiguration of the energy distribution network in South Kerman power distribution Company.**
   Executor: Hossein Askarian Abyaneh

Project partner: Reza Eslami

5. **The load estimating of distribution sub-stations and optimizing energy losses in Karaj power distribution company**
   Executor: Hossein Askarian Abyaneh
   Project partner: Reza Eslami

6. **Investigating and analyzing the accidents that occurred in the transmission and distribution network of Azerbaijan regional electricity company in order to find the root of the factors influencing the occurrence of accidents and providing corrective solutions to reduce accidents, in the approval stage.**
   Executor: Reza Eslami

7. **Planning the development of the transmission network of Azerbaijan regional electricity company in the horizon of 1407, in the approval stage.**
   Executor: Reza Eslami

8. **Design and implementation of intelligent digital current and voltage protection system in the power network, in the approval stage.**
   Executor: A team of faculty members of the faculty of electrical engineering, Sahand university of technology

Computer skills:

- General computer knowledge at a very good level
- System: Windows, Office programs (Word, Excel, Power point, Visio)
- Electrical engineering software: Dig Silent, Pscad, Pasha, Proteus, Gams, Matlab Simulink, Etap
- Programming: Mathlab, C++
- Creating a connection between different software to make better utilization, for example, connection between Dig Silent and Mathlab.

Executive records:

1. Responsible for undergraduate projects at the Faculty of Electrical Engineering
2. Head of the Non-Iranian Students Department of Sahand University of Technology
3. Representative of the electrical engineering faculty in the electronic education faculty (virtual university)
4. Advisor of IEEE student branch
5. Consultant for various master's entrances
6. Responsible for holding several final exams of the electrical engineering faculty

Research interests:

1. Studies related to smart grids
2. Studies related to all types of microgrids
3. Protection of electric power networks
4. Protection of all types of microgrids
5. Fault detection in all types of electrical networks
6. Studies related to various distributed generations and renewable energy resources
7. Improving power quality parameters in all types of electric power networks
8. Improvement of reliability parameters in all types of electric power networks
9. Reducing power and energy losses in all types of electric power networks