

Saeid Mahmoudi_Curriculum Vitae



Electrical Engineering-Energy Management

Name & Surname

Saeid Mahmoudi

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RESEARCH INTERESTS

- Energy management
- Energy planning and energy policy
- Renewable and sustainable energy
- Energy pricing (power, oil and gas market, Levelised cost of electricity generation (LCOE))
- Power and gas exchanges
- Smart grid (SG), demand response (DR), demand side management (DSM), integrated resource planning (IRP) and distributed generation (DG)
- Energy auditing
- Electric vehicle and EV charging station
- Energy storage (ES)

EDUCATIONAL RECORDS

- **Bachelor of Science (BSc)**
 - Islamic Azad University-South Tehran Branch
 - Electrical and Computer Engineering
 - Major: Power Systems
 - GPA: 3.2/4

September 2007 – June 2011
Tehran - Iran
- **Master of Science (MSc)**
 - Amirkabir University of Technology (AUT)
 - Electrical and Mechanical Engineering
 - Electrical Engineering, Energy Management
 - GPA: 4/4

September 2012 – June 2014
Tehran - Iran
- **PhD Entrance Exam**
 - Ranked 65 out of more than 2500 PhD entrance exam candidates on 2018 in Iran

HONORS AND AWARDS

- Excellent Rank of PhD entrance exam in major of electrical engineering (2018, Iran).
- Member of electrical engineer on Tehran Construction Engineering Organization (TCEO) since May 2011 so far.
- Scientific and Electrical engineering association member of Amirkabir university of technology,

[Sep 2012- Aug 2014].

- Member of CIGRE-Iran (International Council on Large Electric Systems-CIGRE), CL. 35 workgroup, [Sep 2017-present].
- Author of two books, Electric Vehicle (EV) public charging station, Publication of Plan and Budget Organization (Iran), [April and May 2018].
- Author of more than 20 scientific papers in last 5 years.
- Peer reviewer of scientific paper on Quarterly Energy Economics Review (Iran), [Oct 2016-present].

INTERNSHIP, RESEARCH AND WORK EXPERIENCES

- Internship at Be'sat Power plant in Tehran (Iran), [Oct 2010-Apr 2010].
- Internship at Be'sat 63 KV substation in Tehran [Oct 2010-Apr 2010].
- Expert and Researcher at Department of power system studies, Niroo Research Institute (NRI), Tehran, Iran, [Sep 2013-Nov 2015].
- Joint Co-operating on project with National Company of Iranian Gas Exporting, Ministry of Oil and NRI, [May 2015-Dec 2015].
- Joint Co-operating with Tavanir, Power trade development and NRI, [Jul 2015-Jun 2016].
- Joint Co-operating with Power and Energy planning department, Niroo (Power and Water) ministry and NRI, [Jul 2015-Nov 2016].
- Expert and Researcher at Department of Electrical and Energy Economics, [Aug 2016-May 2017].
- Expert and Researcher at Center of policy making and energy planning studies, [Aug 2016-May 2017].
- Expert and Researcher at Department of power system operation, NRI, [May 2017-Dec 2018].
- Expert advisor at Ernest & Young (EY-Pars), Advisory Sector, Saman Bank Remediation Project, Tehran, Iran, [Aug 2018-Dec 2018].

PUBLICATIONS

○ PAPERS

- **S. Mahmoudi**, S.H. Hosseini, "Assessing ECPA process by providing different scenarios in a residential site in order to reduce and optimize energy consumption and its Long-range impacts on Iran's energy sector" in Persian, 29th International Power System Conference (PSC), Iran, 2014.
- **S. Mahmoudi**, H. Berahmandpour, K. Heydari, "Determination of electricity price based on proposed LCOE algorithm according to different technologies and evaluation of case study in Iran" in Persian, 30th International Power System Conference (PSC), Iran, 2015.
- V. Arianpour, H. Berahmandpour, M. Ranjbar, K. Heydari and **S. Mahmoudi**, "The prospect of electricity and natural gas exchanges between Iran and neighboring countries on the horizon of 2040" in Persian, 32th International Power System Conference (PSC), Iran, 2017.
- **S. Mahmoudi**, O. Shahhoseini, "Evaluation of energy policy challenges in Iran and propose solutions to deal with them" in Persian, 32th International Power System Conference (PSC), Iran, 2017.
- **S. Mahmoudi**, K. Heydari, "The 35-year prospect wind power price by considering capacity expansion power plants (WT) in Iran and the World up to 2050 horizon" in Persian, 4th Wind Energy Conference in Iran, Iran, 2017.
- Hessamedin Talebi, **S. Mahmoudi**, Hassan Talebi, "Simultaneous Optimal Location and Controller Design of STATCOM in Coordination with PSS using LMPSO", Electrical Engineering and Computer, 5th International Conference, 2018.

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- Hessamedin Talebi , **S. Mahmoudi**, Hassan Talebi, “Optimal Sizing of Solar Power Plant System Using the Imperialist Competitive Algorithm (ICA) for Lavan Island”, Electrical Engineering and Computer, 5th International Conference, 2018.
 - **S. Mahmoudi**, S. Shahbazi, G.B. Gharehpetian, “Electrical and Thermal Stochastic Energy Management of Microgrid in Presence of DGs and ESSs Considering Demand Response Scenarios”, The 12th International Energy Conference, Iran, 2018.
 - **S. Mahmoudi**, O. Shahhoseini, “Assessing types of public EV charging stations along with comparative studies in the United States and Europe” in Persian, 7th International Conference on Modern Approaches to Energy Conservation, Iran, 2018.
 - **S. Mahmoudi**, O. Shahhoseini, “The infrastructure and legal requirements in order to presence of electric vehicles on power network” in Persian, The 12th International Energy Conference, Iran, 2018.
 - **S. Mahmoudi**, S. Shahbazi, G.B. Gharehpetian, “Opportunities and challenges for the presence of electric vehicles (EVs) in active distribution network by considering different solutions in order to remove obstacles” in Persian, The 12th International Energy Conference, Iran, 2018.
 - **S. Mahmoudi**, H. Berahmandpour, “A comprehensive review of background and prospective Afghanistan's Energy along with the role of Iran in order to exchanging energy” in Persian, The 12th International Energy Conference, Iran, 2018.
 - **S. Mahmoudi**, H. Berahmandpour, “A comprehensive review of background and prospective Pakistan's Energy along with the role of Iran in order to exchanging energy” in Persian, The 12th International Energy Conference, Iran, 2018.
 - **S. Mahmoudi**, H. Berahmandpour, “A comprehensive review of background and prospective Turkmenistan's Energy along with the role of Iran in order to exchanging energy” in Persian, The 12th International Energy Conference, Iran, 2018.
 - **S. Mahmoudi**, H. Berahmandpour, “A comprehensive review of background and prospective Iraq's Energy along with the role of Iran in order to exchanging energy” in Persian, The 12th International Energy Conference, Iran, 2018.
 - **S. Mahmoudi**, O. Shahhoseini, “Evaluation of the most important standards related to public EV charging stations by considering their developer organizations” in Persian, 5th Iranian Energy Community Conference, Iran, 2019.
 - **S. Mahmoudi**, O. Shahhoseini, “Payment methods of EV Charging Station, along with the experience of most reputable manufacturers” in Persian, The 12th International Energy Conference, Iran, 2019.
 - **S. Mahmoudi**, M. Parsa Moghaddam, “Enhancement of energy efficiency in a residential site by the ECPA process and using DDM methodology”, in Persian, the 12th International Energy Conference, Iran, 2019.
 - **S. Mahmoudi**, M. Parsa Moghaddam, “Evaluating energy modeling tools and utilizing LEAP in order to forecast energy balances of the Iran country to the 2030 horizons”, in Persian, The 12th International Energy Conference, Iran, 2019.

○ TECHNICAL REPORTS

- **S. Mahmoudi**, H. Berahmandpour, “Data gathering of Natural Gas (NG) and Electricity production and consumption outlook in neighboring countries of Iran” in Persian, Department of Power System Studies, 2014.
- **S. Mahmoudi**, H. Berahmandpour, “The Power-network structure in Iran's neighboring countries include primary sources, types of power plants, capacity and production Potential and assessing transmission network (Development plans and upcoming horizons up to 1420)” in Persian, Department of Power System Studies, 2014.
- **S. Mahmoudi**, H. Berahmandpour, “Utilization of nuclear power plants in neighboring countries and its effects on their energy outlooks” in Persian, Department of Power System Studies, 2014.
- **S. Mahmoudi**, H. Berahmandpour, “Demand information for crude oil and petroleum products

in neighboring countries of Iran” in Persian, Department of Power System Studies, 2014.

- **S. Mahmoudi**, H. Berahmandpour, “Evaluation of sailing petroleum products information (historical) in neighboring countries of Iran”, Department of Power System Studies, 2014.
- **S. Mahmoudi**, H. Berahmandpour, “Analysis of prospects and energy policy in neighboring countries of Iran along with providing scenarios to exchange electricity and natural gas”, Department of Power System Studies, 2015.
- **S. Mahmoudi**, H. Berahmandpour, “Preparing a methodology to calculate electricity price in Iran and neighboring countries based on the LCOE algorithm” in Persian, Department of Power System Studies, 2015.
- **S. Mahmoudi**, H. Berahmandpour, “Preparing daily, Monthly and annual Load-Curves electricity exchanges between Iran and neighboring countries” in Persian, Department of Power System Studies, 2015.
- **S. Mahmoudi**, H. Berahmandpour, “Analysis of domestic power plant capacities and refinery production up to 1420 horizon and estimating capacity of electricity and natural gas exchanges between Iran and neighboring countries” in Persian, Department of Power System Studies, 2016.
- **S. Mahmoudi**, “Preparing database for NG and electricity integrated modeling in Iran” in Persian, Department of Power System Studies, 2016.
- **Saeid Mahmoudi**, “Proposed bidding procedure for Iran's natural gas exchanges” in Persian, Department of Power System Studies, 2016.
- **S. Mahmoudi**, “Exchanging natural gas scenarios for Iran, including volume and price” in Persian, Department of Power System Studies, 2016.
- **S. Mahmoudi**, “Analysis of common energy planning models with their strengths and weaknesses” in Persian, 2017.
- **S. Mahmoudi**, “Preparing proposal: A comprehensive review of LEAP, MESSAGE and TIMES software for modeling energy system” in Persian, Center of policy making and energy planning studies, 2017.
- **S. Mahmoudi**, “Identification of required data for LEAP software in order to energy system modeling” in Persian, Center of policy making and energy planning studies, 2017.
- K. Heydari, **S. Mahmoudi**, F. Falahi and others, “Strategic action for Comprehensive Energy Planning in Iran” in Persian, Center of policy making and energy planning studies, 2017.
- K. Heydari, B. Azodi Deylami, **S. Mahmoudi** and A. Amirfakhrian, “Road Map for Electrical and Energy Modeling of Iran” in Persian, Department of Electrical and Energy Economics, 2017.
- **S. Mahmoudi**, “Types of public electric vehicles charging station” in Persian, Department of power system operation, 2017.
- **S. Mahmoudi**, “Operating and required infrastructure for EV charging stations, including use of cards, credits, payments and etc.” in Persian, Department of power system operation, 2017.
- **S. Mahmoudi**, “Essential EV charging station equipment and components, according to relevant standards” in Persian, Department of power system operation, 2017.
- **S. Mahmoudi**, Persian translation of UL2231-2 standard, “Personnel Protection Systems for Electric Vehicle (EV) Supply Circuits: Particular Requirements for Protection Devices for Use in Charging Systems”, Department of power system operation, 2018.
- **S. Mahmoudi**, Persian translation of UL2251 standard, “Plugs, Receptacles, and Couplers for Electric Vehicles”, Department of power system operation, 2018.
- **S. Mahmoudi**, Persian translation of standard UL62, “Standard for Safety, Flexible Cords and Cables”, Department of power system operation, 2018.
- **S. Mahmoudi**, Persian translation of UL2231-1 standard, “Personnel Protection Systems for Electric Vehicle (EV) Supply Circuits: General Requirements”, Department of power system operation, 2018.
- **S. Mahmoudi**, Persian translation of SAE J1772 standard, “SAE Electric Vehicle and Plug in Hybrid Electric Vehicle Conductive Charge Coupler”, Department of power system operation,

2018.

- **S. Mahmoudi**, Persian translation of SAE J1773 standard, “SAE Electric Vehicle Inductively Coupled Charging”, Department of power system operation, 2018.
- **S. Mahmoudi**, Persian translation of UL2202 standard, “Electric Vehicle (EV) Charging System Equipment”, Department of power system operation, 2018.
- **S. Mahmoudi**, “Fireless locomotive”, Department of power system operation, 2019.
- **S. Mahmoudi**, “Hydraulic accumulator”, Department of power system operation, 2019.
- **S. Mahmoudi**, “Ice storage”, Department of power system operation, 2019.
- **S. Mahmoudi**, “Steam accumulator”, Department of power system operation, 2019.

○ **BOOKS**

- **S. Mahmoudi**, O. Shahhoseini, S. Bahravar, “Technical Specifications and Design, Installation and Operation of Public Electric Vehicle (EV) Charging Stations”, Plan and Budget Organization of Iran, 2018.
- **S. Mahmoudi**, O. Shahhoseini, “Power supply and Equipment Requirements for designing, installing and operating of Electric Vehicle (EV) charging station”, Plan and Budget Organization of Iran, 2018.

PEER REVIEW OF SCIENTIFIC PAPER

- Peer review of scientific paper on Quarterly Energy Economics Review, Iran, [Jun 2016-present]. Website: <http://iiesj.ir/>

SEMINAR & WORKSHOP

- Evaluation of Energy consumption in residential building on Tehran province - Energy consumption processes and assessments for old building and preparing solutions to reduce and optimize energy consumption and losses.
- Preparing a methodology to calculate levelized cost of electricity generation (LCOE) in different technologies in Iran.
- Recommending miscellaneous methods to reduce and saving fossil fuels beside of high security in side of Energy Policy, Iran.

SKILLS

○ **Soft skill courses**

- Leader Ship Skill Courses, Decision making skill courses, How to manage a team work, Creation and innovation skills, A diploma in quality system control, High communication and presentation skills

○ **Computer skills**

- High experiences in using AutoCAD; Good Knowledge in using Lighting software like Dialux and Calclux; Good experiences in using internet and internet applications; Good experiences in using Microsoft Office applications; Good experiences in using energy and power software.

LANGUAGE

- **Persian:** Mother language
- **English:** Foreign Language, [Upper Intermediate]

COURSES

- **Energy Planning** [Amirkabir university of technology, Instructor: Dr. M.M. Ardehali]
- **Energy Auditing** [Amirkabir university of technology, Instructor: Dr. M.M. Ardehali]
- **Distributed Energy (DG)** [Amirkabir university of technology, Instructor: Dr. G.B. Gharehpetian]
- **Renewable Energy** [Amirkabir university of technology, Instructor: Dr. G.H. Riahi Dehkordi]
- **Energy and Power Market** [Amirkabir university of technology, Instructor: Dr. S.H. Hosseinian]
- **Power Quality** [Amirkabir university of technology, Instructor: Dr. S.H. Hosseinian]
- **Reactive Power** [Amirkabir university of technology, Instructor: Dr. H. Fathi]
- **Operation of Power System** [Amirkabir university of technology, Instructor: Dr. M. Abedi]
- **Micro-Grid** [Amirkabir university of technology, Instructor: Dr. G.B. Gharehpetian]
- **Energy Storage** [Amirkabir university of technology, Instructor: Dr. G.H. Riahi Deh]
- **Energy Pricing** [Amirkabir university of technology, Instructor: Dr. S.M. Mousavi Agah]
- **Energy and Environment** [Amirkabir university of technology, Instructor: Dr. B. Vahidi]
- **Energy Management** [Amirkabir university of technology, Instructor: Dr. M. Parsa Moghaddam]
- **Smart Grid** [Amirkabir university of technology, Instructor: Dr. M. Parsa Moghaddam]

References, Further information, and Proofs are available upon Request