

Gholamabbas Fallah-Ghalhari

University of Kashan, Kashan, I.R of Iran

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Date of Birth: Nov 25, 1978

EDUCATION

2008-2012 Ph.D (Physical Geography- Climatology)

University of Isfahan, Isfahan, I.R of Iran

Thesis Topic: Evaluating the consequences of climate change on citrus cultivation areas in Iran.

Detail: In this research, by using the absolute temperature recorded in meteorological stations during 30 years, the suitable areas for citrus cultivation in the period of 1976-2005 were obtained. Then, by using climate model data and emission scenarios, suitable areas for cultivation in the future were calculated. The results showed that the cultivation area will increase in the future due to the increase in temperature. Also, the consequences of climate change on the phenological phases of crop growth, water requirement, growing season temperature and other climatic variables were obtained.

Supervisor: Associate Professor Javad Khoshhal-Dastjerdi (Email: <u>javadkhoshhal@yahoo.com</u>)

2004-2007

Master of Science (Agricultural Meteorology)

Ferdowsi University of Mashhad, Mashhad, I.R of Iran

Thesis Topic: Seasonal rainfall Prediction based on synoptic patterns using fuzzy set theory

Detail: In this research, I determined the climatic signals affecting the precipitation of the cold season of the year (Oct-Mar) in the northeastern region of Iran by correlation method, and among nearly 2000 signals, 14 signals were recognized as appropriate. Then I implemented a fuzzy model named Mamdani in MATLAB software and predicted the next season's precipitation.

Supervisor: Professor Mohammad Mousavi-Baygi (Email: mousavi500@yahoo.com)

1997-2001

Bachelor of Science (Agricultural Engineering-Horticulture Sciences)

University of Zanjan, Zanjan, I.R of Iran.

RESEARCH INTERESTS

Climate change

Agro climatology & meteorology

Climate modelling

Climate hazards

Weather forecasting

Climate comfort

TEACHING EXPERIENCE

Ph.D: Boundary layer climate, climate modeling, climate change and sustainable development, analysis of climate trends in agriculture, interrelationship between climate and ocean, quantitative methods in climatology, new topics in climatology.

Master of Science: Advanced statistical methods in climatology, climate models, agricultural climatology, satellite climatology, climate softwares, environmental management and planning, atmospheric chemistry, synoptic climatology, Boundary layer climate.

Bachelor of Science: soil geography, earth in space, hydrology, mathematics for geography, environmental hazards, physical climatology, dynamic climatology, climate change and its consequences, statistical climatology, weather and climatology, climate maps and charts, general physics, Fundamentals of climatology, microclimatology, environmental hazards.

PUBLICATIONS

JOURNAL PAPERS

- Fallah-Ghalhari, G., Shakeri F., (2023). Assessing the consequences of climate change on potential evapotranspiration in Iran in the coming decades, *Arabian Journal of Geosciences*, 4(16), 2025-2034.
- M Asghari, GF Ghalhari, M Ghanadzadeh... (2023). Modeling of thermal discomfort based representative concentration pathways (RCP) scenarios in coming decades using temperature-humidity index (THI) and effective temperature (ET): a case study in a semi-arid climate of Iran, *Air Quality, Atmosphere & Health*, 1-11.
- Moradimajd, N., Fallah Ghalhari, G. A., & Chatrenour, M. (2023). Sensitivity Assessment of Nitrous oxide Greenhouse Gas Emissions in Agricultural Lands of Khuzestan Province with Linear and Non-linear Models. *Environmental Researches*, 14(27), 43-58.
- Moradimajd, N., Fallah Ghalhari, G. A., & Chaternour, M. (2023). Modeling of Greenhouse Gas Emissions in Sugarcane Cultivation and Industry in Khuzestan Province. *Irrigation Sciences and Engineering*, 46(2), 45-57.

- Asghari, M., Ghalhari, G. F., Teimori-Boghsani, G., Dehghan, S. F., & Heidari, H. (2022). Trend investigation of thermal comfort in different climates of Iran in past decades. *Environmental and Climate Technologies*, 26(1), 155-165.
- Asghari, M., Ghalhari, G. F., Pirposhteh, E. A., & Dehghan, S. F. (2022). Spatio-Temporal Evolution of the Thermo-Hygrometric Index (THI) during Cold Seasons: A Trend Analysis Study in Iran. *Sustainability*, *14*(24), 16774.
- Moradi-Majd, N., Fallah-Ghalhari, G., & Chatrenor, M. (2022). Estimation of greenhouse gas emission flux from agricultural lands of Khuzestan province in Iran. *Environmental Monitoring and Assessment*, 194(11), 811.
- Ghalhari, G. F., Heidari, H., Dehghan, S. F., & Asghari, M. (2022). Consistency assessment between summer simmer index and other heat stress indices (WBGT and Humidex) in Iran's climates. *Urban Climate*, 43, 101178.
- Fallah Ghalhari, G., & Shakeri, F. (2022). Assess the role of climate change and teleconnection signals at maximum temperature, Case study: Khuzestan province. *Journal of Applied researches in Geographical Sciences*, 22(67), 439-457.
- Asghari, M., Fallah Ghalhari, G., Heidari, H., Moradzadeh, R., Samadi, S., Tajik, R., & Ghanadzadeh, M. (2022). Modeling and predicting trends of heat stress based on climate change phenomenon: A case study in a semi-arid climate. *Environmental Health Engineering And Management Journal*, 0-0.
- Moradimajd, N., Fallah Ghalhari, G. A., & Chatrenour, M. (2022). Consequences of Climate Change on Greenhouse Gas Emissions in Citrus Orchards and Gardens (Case Study: Khuzestan Province). *Environmental Researches*, *13*(25), 199-214.
- Moradimajd, N., Fallah Ghalhari, G., & Chatrenour, M. (2022). Evaluation of CH4, NO and NO2 emission from agricultural lands (Case study, Khuzestan province). *Journal of Agricultural Meteorology*, 10(1), 46-54.
- Hamidian Pour, M., Fallah Ghalhari, G., & Reza Alimoradi, M. (2021). Evaluating the Efficiency of the SDSM Model in Investigating the Consequences of Climate Change for Different Climate Zones in Iran. *Climate Change Research*, 2(5), 1-14.
- Asghari, M., Fallah Ghalhari, G. A., & Heidari, H. (2021). Investigation of thermal comfort changes using Summer Simmer Index (SSI): A case study in different climates of Iran. *The Open Environmental Research Journal*, 14(1).
- Fallah-Ghalhari, G., & Shakeri, F. (2021). An assessment of Iran's seasonal temperature probability distribution variations in the future decades. *Arabian Journal of Geosciences*, *14*, 1-18.
- Ghalhari, G. F., Dehghan, S. F., Pirposhteh, E. A., & Asghari, M. (2021). Trend Analysis and Temporal and Spatial Distribution of Wet Bulb Globe Temperature as a Heat Stress Index in Iran during the Summer Season over a 30-Year Period. *Journal of Environmental Health and Sustainable Development*.
- Ghalhari, G. F., Dehghan, S. F., Pirposhteh, E. A., Teimori, G., Basati, M., & Asghari, M. (2021). Applicability of air enthalpy for heat stress assessment of outdoor environments in different climates of Iran. *Theoretical and Applied Climatology*, 145(3-4), 1233-1242.
- Moradimajd, N., Fallah Ghalhari, G. A., & Chatrenor, M. (2020). Prediction of Greenhouse Gases and Global Warming Potential in Agricultural Lands of Khuzestan Province Using DAYCENT Model. *Iranian Journal of Soil and Water Research*, 51(9), 2259-2273.
- Adab, H., Morbidelli, R., Saltalippi, C., Moradian, M., & Ghalhari, G. A. F. (2020). Machine learning to estimate surface soil moisture from remote sensing data. *Water*, *12*(11), 3223.

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- Ghalhari, G. F., Dehghan, S. F., Shakeri, F., Ghanadzadeh, M. J., & Asghari, M. (2020). Assessing the monthly changes of heat stress indices in outdoor environment during a 15-year period: Case of study in a dry and warm climate. *Urban Climate*, 31, 100538.
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- Asgari, E., Fallah-Ghalhari, G., & Jamalabadi, J. (2020). An Assessment of climate parameters trend affecting almond production in West Azerbaijan province. *Physical Geography Research Quarterly*, 52(2), 253-269.
- Shojaee, T., Fallah Ghalhari, G. A., & Kashki, A. (2020). Effects of Climate Change on Grape Tree Phenological Date Change in Iran. *Physical Geography Research Quarterly*, *52*(1), 129-145.
- Shojaee, T., Fallah Ghalhari, G. A., & Kashki, A. (2020). Investigation of phalogenetic stages of raisins grapevine and changes in chilling accumulation that in Iran . *Physical Geography Quarterly*, 12(46), 31-44.
- Shojaee, T., Fallah Ghalhari, G. A., & Kashki, A. (2020). Evaluating the Ability of Grapevine Cultivation in Iran Based on Climatic Conditions, *Water and soil sciences*, 33(6), 923-942.
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- Ghalhari, G. A. F., Shakeri, F., Abbasinia, M., Ghanadzadeh, M. J., Tajik, R., & Asghari, M. (2019). Use of Becker and neurotic pressure bioclimatic indices in the assessment of thermal comfort in outdoor environments based on meteorological data: case study in three different climates of Iran. *Iran Occupational Health*, *16*(1), 33-46.
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- H Ahmadi, G Fallah Ghalhari, M Baaghideh, ME Amiri., (2018). Investigating the effects of climate change on the pattern of heat accumulation in apple trees cultivation areas in Iran during the future period, *Journal of Spatial Analysis Environmental hazards*, 2(5): 35-54.
- Fallah Ghalhari, G., Shakeri, F., & Nodehi, O. (2018). The zoning of spatial and temporal distribution of the beginning, the end, and the frequency of freezing in Khorasan Razavi province. *Human & Environment*, 16(1), 13-24.
- Fallah, GGA., M, Goodarzi., (2018). Estimation and determination of spatial pattern of Apple tree water requirement in Iran, *Iranian Journal of Ecohydrology*, 1(5), 149-160.
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- Fallah Ghalhari, G., Ahmadi, H., & Fakheri, M. (2016). Evaluate the Climate Calendar of Beekeepers in West Azerbaijan Province Based on Thermal Conditions. *Geographical Researches*, 31(1), 13-30.
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- Fallah Ghalhary, G., & Ahmadi, H. (2016). The estimation of phenological thresholds of Saffron cultivation in Isfahan province based on the daily temperature statistics. *Saffron Agronomy & Technology*, 4.
- Fallah Ghalhari, G., & Bayranvand, F. (2016). Estimating of sesame crop water requirement in Sabzevar climate. *Journal of Arid Regions Geographic Studies*, 6(21), 1-14.
- Ahmadi, H., Fallah Ghalhary, Q., & Shaemi, A. (2016). Estimating and Evaluating the Trends of Annual Refrence Eevapotranspiration based on Influential Climatic Parameters in the North East of Iran. *Water and Soil Science*, 26(3-2), 257-269.
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- Fallah Ghalhari, Q., & Shakeri, F. (2016). Calibration of Angstrom-Prescott coefficients for selected stations of Khorasan-e Razavi Province. *Water and Soil Science*, 26(3-2), 229-241.
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- Fallahgh Ghalhari, G., Baaghideh, M., & Rezaei, H. (2016). Estimation for potato products water requirement in Torbat Heidariyah region and determining the actual Evapotranspiration based on the reference Evapotranspiration. *Human & Environment*, 14(2), 49-60.
- Fallah Ghalhari, G., & Shakeri, F. (2016). The application of Artificial Neural Networks techniques in the rainfall prediction. *Iranian Journal of Watershed Management Science and Engineering*, 9(31), 98-110.
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- Rezaei, H. (2015). Climatic parameters rules on barberry phonology stages in Gonabad. *Territory*, 12(47), 1-16.
- Fallah Ghalhari, G., & Shakeri, F. (2015). Assessing and Predicting the Temporal and Spatial Distribution of Beginning and Ending of Frost in the Northern Region of Iran. *Nivar*, 39(90-91), 27-36.
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- Askarizadeh, M., Fallah Ghalhari, G.A., Habibi Nokhandan, M., (2018). The importance of crisis management planning in environmental hazards, National Conference on Reducing the Effects of Atmospheric and Climate Disasters, Conference on Coping with Atmospheric Disasters, November 2018, General Directorate of Meteorology of the Ardabil province.
- Askarizadeh, M., Zabol Abbasi, F., Malboosi, S., Fallah Ghalhari, G.A., (2018). Drought severity zoning using percentage of normal index in Khorasan Razavi province, *The First International Conference on Water Crisis*, 2018, Zabol University.
- Askarizadeh, M., Fallah Ghalhari, G.A., Rostegar Moghadam, M.T., (2017). Application of risk management in reducing the environmental effects of drought using the standard precipitation index, *3rd Disaster Management Conference*, December 2018, Scientific association of Cartographic Engineering and dealing with natural disasters, University of Tehran.
- Adab, H & Fallah Ghalhari, G.A., (2017). Using perceptron neural network in precipitation mediation and its application in drought risk management, *The First International Conference on Water Crisis*, February 2018, Zabol University.
- Nouri, S., Mohammadian, A., Fallah Ghalhari, G.A., Habibi Nokhandan, M., (2018). Comparison of the results obtained from the use of artificial neural networks and the Penman-FAO-Monteith method in estimating plant transpiration evapotranspiration, *Tenth Irrigation and Evaporation Reduction Seminar*, February 2018, Shahid Bahonar University of Kerman.

- Fallah Ghalhari, G.A., Baaghideh M., Fakheri, M., (2013). Investigating the time of planting and flowering of saffron, a comparative study (Khorasan and West Azerbaijan), 2nd National Conference on The Newest Scientific and Research Findings on Saffron, November 8, 2014, Torbat Heydariyeh University.
- Fallah Ghalhari G.A., Rezaei, H., Moradi M., & Soltani M., (2013). A comparative study between temperature, humidity and Misnard in the city of Mashhad for the development of tourism, *The Second National Conference on Tourism and Ecotourism of Iran papers*, July 17, 2012, Shahid Mofatteh Technical College, Hamedan.
- Fallah Ghalhari, G.A., Haji Mohammadi, H., (2013). Simultaneous analysis of large floods of the Karkhe River, *International Conference on Geography, Urban Planning and Sustainable Development*, March 8, 2013, Tehran.
- Fallah Ghalhari, G.A., Haji Mohammadi, H., (2013). Agro climatic zoning of Razavi Khorasan using the cluster analysis method, *National Conference on Climate Change and Sustainable Agriculture*, Hamedan, July 5, 2013.
- Bayatani, F., Fallah Ghalhari, G.A., (2013). Study of the trend of seasonal and annual changes in rainfall and runoff in the Halil River watershed, *Regional Conference on Development Challenges and Strategies in Deprived Areas*, March 13, 2014, Azad University of Kahnuj.
- Fallah Ghalhari, G.A., & Haji Mohammadi H., (2013). Investigation of the anomaly of the start and end of ice caps in the southern half of the country, *Iranian Conference of Geographical Sciences*, May 30, 2013, Tehran.
- Fallah Ghalhari, G.A., Ahmadi, F., Ahmadi, H., & Hosseini, S. A., (2013). Study of climate change in Kermanshah city with the non-parametric test of Kendall in order to develop sustainable agriculture, *Second National Conference on Agricultural Engineering and Management, Environment and Sustainable Natural Resources*, 20 March 2013, Tehran, International Conference Center of Shahid Beheshti University.
- Fallah Ghalhari, G.A., Ahmadi, H., Ahmadi, F., & Hosseini, S.A., (2013). Evaluation of reference evaporation and transpiration and effective rain in Kermanshah province in order to develop agriculture, *Second National Conference on Agricultural Engineering and Management, Environment and Sustainable Natural Resources*, 20 March 2013, Tehran, International Conference Center of Shahid Beheshti University.
- Shakri, F., Fallah Ghalhari, G.A., & Khosrawani, V., (2013). Investigation and determination of the first fall glaciers and the last spring glaciers in Quchan city, *The First National Conference on Geography, Tourism, Natural Resources and Sustainable Development*, 30 February 2013, Museum garden of Tehran Palace.
- Fallah Ghalhari, G.A., Shakri, F., & Khosrawani, V., (2013). Comparison of PN and SPI indices in the study of droughts in Razavi Khorasan province with emphasis on Sabzevar and Torbat Heydaria stations, The First National Conference on Geography, Tourism, Natural Resources and Sustainable Development, 30 February 2013, Museum garden of Tehran Palace.
- Fallah Ghalhari, G.A., Dadashi Roudbari, A.A., & Rahimi, A., (2013). Satellite synoptic assessment of the dust phenomenon in southwest and south of Iran, *The First National Conference on Geography, Tourism, Natural Resources and Sustainable Development*, 30 February 2013, Museum garden of Tehran Palace.
- Fallah Ghalhari, G.A., Kandchini, M., (2013). Bioclimatic indicators affecting the assessment of climatic comfort (case study, Hamadan city), *The First National Conference on Geography, Tourism, Natural Resources and Sustainable Development*, 30 February 2013, Museum garden of Tehran Palace.

- Fallah Ghalhari, G.A., & Haji Mohammadi, H., (2013). Investigation and correlation of atmospheric patterns of 500 hpa level with heavy rains in Torbat Jam city, *The First National Conference on Sustainable Development in Geography and Planning, Architecture and Urban Planning*, December 13, 2013, Tehran.
- Fallah Ghalhari, G.A, Dadashi Roudbari, A.A., (2013). Zoning of humidity parameters for rainfed cultivation (case study of Isfahan *the third national congress on organic and conventional agriculture*, 29 August 2013, Ardabil.
- Bayatani, F., & Fallah Ghalhari, G.A., (2013). Modeling winter precipitation using artificial neural network with minimum climatic variables in Kerman station, *The First National Conference on Agriculture, Environment and Food Security*, 3 March 2015, Jiroft, Iran.
- Baagideh, M., Fallah Ghalhari, G.A., & Rahchamani, M., (2014). Investigation of cooling-heating needs in Razavi Khorasan, 2nd International conference on sustainable development, strategies and challenges With a focus on Agriculture, Natural Resources, Environment and Tourism, 6 March 2014, Tabriz.
- Fallah Ghalhari, G.A., & Kodkhoda, E., (2014). Collaborative evaluation of heavy rains in Mashhad, *The Third International Congress of Geography and Sustainable Development*, December 18, 2014, Tehran.
- Alavi, M., Baagideh M., Fallah Ghalhari, G.A., (2015). Spatial distribution of pomegranate ripening stage in Razavi Khorasan, *The Third National conference on climate change and engineering sustainable agriculture and natural resources*, Tehran, International Conference Hall of Shahid Beheshti University.
- Fakheri, M., Fallah Ghalhari, G.A., & Baaghideh, M., (2018). Climatic Feasibility of Saffron Cultivation in West Azerbaijan Province Using Hierarchical Analysis Method, 2nd National Conference on Climate Change and its Impact on Agriculture and the Environment, August 23 2018, Urmia. pp. 212-206.
- Fallah Ghalhari, G.A., Javadi, Z., (2019). Identifying the time of occurrence of pistachio phenology stages in Sabzevar city, 8th National Conference on Applied Research in Agricultural Sciences Healthy food from farm to fork, November 2019, Tehran.
- Fallah Ghalhari, G.A., Javadi, Z., (2019). Identification of climatic parameters affecting the performance of walnut crop, case study: Sabzevar, 8th National Conference on Applied Research in Agricultural Sciences Healthy food from farm to fork, November 2019, Tehran.
- Fallah Ghalhari, G.A., Baaghideh, M., & Kolahdrazi, M., (2019). Investigation of the effect of climate change on physiological stresses (case study: Razavi Khorasan Province), 39th National Congress and 4th International Congress of Earth Sciences, March 2019, Tehran.
- Fallah Ghalhari, G.A., & Safarzaei, N., (2021). Analysis of moisture sources of summer torrential rains in southeastern Iran (case study: Iranshahr city), 39th National Congress and 4th International Congress of Earth Sciences, February 2021, Tehran.
- Fallah Ghalhari, G.A., Golmohammadi, F., (2019). Evaluation of changes in Iran's rainfall indicators in the coming decades using climate change scenarios, 8th National Conference on Water Resources Management of Iran, February 2019, Ferdowsi University of Mashhad.
- Fallah Ghalhari, G.A., Askari, E., Shojaei, T., & Safarzaei, N., (2019). Investigation of the relationship between droughts in Iran with atmospheric-ocean remote connection patterns, 8th National Conference on Water Resources Management of Iran, February 2019, Ferdowsi University of Mashhad.

• Fallah Ghalhari, G.A., Fahimi-Nejad, E., (2019). Comparison of base flow estimation methods based on flow hydrograph separation (case study of Atrak watershed), *19th Iranian Hydraulics Conference*, February 2019, Ferdowsi University of Mashhad.

BOOKS

- Fallah-Ghalhari, G.A., (2013). Essentials and Fundamentals of Meteorology, Hakim Sabzevari University Press, second edition, 919 pp.
- Fallah-Ghalhari, G.A., (2013), Boundary Layer Climate, Hakim Sabzevari University Press, first edition, 403 pp.
- Fallah-Ghalhari, G.A., (2013). Statistical downscalling of climatic data, Sokhon Gostar Press, first edition, 276 pages.
- Fallah-Ghalhari, G.A., (2015). Physical Meteorology, Hakim Sabzevari University Press, first edition, 312 pp.
- Fallah-Ghalhari, G.A., Esmaili, R., & Shakeri, F., (2021), Consequences of climate change on urbanization, Hakim Sabzevari University Press, first edition, 276 pp.
- Moradi-Majd, N., Fallah-Ghalhari, G.A., Chatrenoor, M., (2022). The use of DNDC and DayCent softwares in the management and evaluation of agricultural lands, Pazhoohandegan Rah Danesh press, first edition, 272 pp.

RESEARCH PROJECTS

- Asghari, M, Fallah Ghalhari, G.A., Qannad-zadeh, M.J., (2019). Analysis of selected thermal comfort indicators in open space based on a 15-year period (2000-2014) in Arak city, Arak University of Medical Sciences and Health Services.
- Esmaili, R., Fallah Ghalhari, G.A., (2018). The consequences of climate changes on the possibility of development of two kernel species, almond and apricot, a case study of Razavi Khorasan, Climatological Research Institute, Mashhad, Iran.
- Babaian, I., Habibi-Nokhandan, M., Fallah-Ghalhari, G.A., ... (2018). Feasibility of seasonal and long-term advance knowledge of precipitation and temperature using numerical models of long-term forecasting and micro-scaling for Kerman province., Climatological Research Institute., Mashhad, Iran.
- Fallah Ghalhari, G.A., (2017). Forecasting spring rainfall in Razavi Khorasan province based on meteorological signals using fuzzy logic, artificial neural networks and adaptive fuzzy neural networks, Climatology Research School.
- Climatological Research Institute, (2017). Review and presentation of the most suitable road meteorological sensors (determining the type and number) according to the prevailing climatic conditions of Iran.
- Fallah Ghalhari, G.A., Asadi, M., Dadashi Roudbari, AA., (2014). Identifying areas prone to dry wheat cultivation in Fars province, 2014, Hakim Sabzevari University.
- Fallah Ghalhari, G.A., Asadi, M., Dadashi Roudbari, AA., (2014). Evaluation of spatial autocorrelation of humidity distribution in Iran, Hakim Sabzevari University.
- Fallah Ghalhari, G.A., Kodkhoda, E., Baaghideh, M., Farid Hosseini, A., (2014), study of the consequences of climate change on the water supply sources of the Mashhad Plain, client: Mashhad Water and Wastewater Company.

- Fallah Ghalhari, G.A., Shakri, F., (2014), evaluation of changes in the frequency of thunderstorms in Iran, Hakim Sabzevari University.
- Fallah Ghalhari, G.A., Dadashi Roudbari, AA., (2013). Zoning areas prone to dry wheat cultivation in Mazandaran province using AHP method, Hakim Sabzevari University.
- Fallah Ghalhari, G.A., Dadashi Roudbari, AA., Asadi, M., (2013). Evaluation of the spatial autocorrelation of Iran's monthly rainfall in the last half century, Hakim Sabzevari University.
- Samadi, S., Babaian, I., Habibi-Nokhandan, M., Fallah-Ghalhari, G.A., ... (2008). Carrying out research and studies related to the recording of atmospheric data in the area of Mashhad recycling plant and the feasibility of forecasting its weather conditions, Climatological Research Institute, Mashhad, Iran.

RESEARCH SKILLS

- Climate change modelling using GCM data
- Highly proficient with SDSM, ASD and LARS-WG softwares
- Programming using Matlab Software
- Ability to work with ARCGIS software and ENVI
- Highly proficient in climate prediction using by artificial intelligent
- Highly proficient modelling using neural network, Fuzzy logic and Adaptive-Neuro Fuzzy Inference System (ANFIS)
- Ability to work with statistical software such as SPSS, Minitab, JMP4, Statistica, Stata
- Interest in field work in agriculture
- Interested in researching the consequences of climate change on water resources, agriculture, food security, etc
- Ability to work with softwares such as Cropwat and AquaCrop.

WORK EXPERIENCE

- National Climate Center, Mashahd, Iran (2007-2011- Research assistant)
- Hakim Sabzevari University, Sabzevar, Iran (2012- 2016- Assistance professor)
- Hakim Sabzevari University, Sabzevar, Iran (2016- 2018- Associate professor)
- Shiraz University, Shiraz, Iran (2018-2019- Associate professor)
- Hakim Sabzevari University, Sabzevar, Iran (2019- 2021- Associate professor)
- Hakim Sabzevari University, Sabzevar, Iran (2021- 2023- professor)
- Research Institute of Forests and Rangelands, Tehran, Iran (2023-present-professor)

WORKSHOPS

- Introductory ARC GIS training course, 2018, Ayeneh Shahr Farda Institute, Ferdowsi University of Mashhad Entrepreneurship Development Center.
- Advanced ARC GIS training course, 2018, Ayeneh Shahr Farda Institute, Ferdowsi University of Mashhad Entrepreneurship Development Center.
- ERDOS software training course, 2018, Ayeneh Shahr Farda Institute, Ferdowsi University of Mashhad Entrepreneurship Development Center.
- Participation in the rainfall modeling workshop using TRMM satellite images, Climatological Research Institute, August 2017.

- Holding a training workshop on the application of fuzzy logic in climate forecasts, November 3, 2013, Hakim Sabzevari University.
- Holding a training workshop on SDSM software, November 5, 2013, Hakim Sabzevari University.
- Participation in the training workshop of numerical weather prediction model (WRF) and digital meteorological data processing, March 7-9, 2015, Hakim Sabzevari University.

AWARDS AND HONORS

- Obtaining the third rank in the master's thesis in the sixth Ferdowsi Festival in 2007, Ferdowsi University of Mashhad, Mashhad, Iran.
- Researching Award based on research evaluations of Hakim Sabzevari University in 2013, Sabzevar, Iran.
- Researching Award based on research evaluations of Hakim Sabzevari University in 2015, Sabzevar, Iran.
- Researching Award based on research evaluations of Hakim Sabzevari University in 2016, Sabzevar, Iran.
- Researching Award based on research evaluations of Hakim Sabzevari University in 2019, Sabzevar, Iran.
- Researching Award based on research evaluations of Hakim Sabzevari University in 2020, Sabzevar, Iran.
- Researching Award based on research evaluations Hakim Sabzevari University in 2021, Sabzevar, Iran.
- Researching Award based on research evaluations of Hakim Sabzevari University in 2022, Sabzevar, Iran.

SUPERVISING EXPERIENCE (M.Sc and Ph.D)

- Moradi Majd, N., (2019). DAYCENT simulation to trace the flux of CH4, N2O and NO gases in Khuzestan farms, PhD thesis, Hakim Sabzevari University.
- Shakri, F., (2019). evaluation of the effects of increasing albedo on urban heat island and air quality in Tehran and Alborz provinces, PhD thesis, Hakim Sabzevari University.
- Jamaluddin, M., (2019). Evaluation of the consequences of climate change on the trend and structure of weather parameters affecting almond trees (case study: Razavi Khorasan province), master's thesis, Hakim Sabzevari University.
- Rezaei, H., (2018). Effects of climate change on barberry cultivation areas in Iran, PhD thesis, Hakim Sabzevari University.
- Shojaei, T., (2018). Study of the effects of climate change on seedless white raisin vine in Iran, PhD thesis, Hakim Sabzevari University.
- Bayatani, F., (2018). Study of the effects of climate change on yield and water requirement of potatoes in Iran, PhD thesis, Hakim Sabzevari University.
- Abdi, E., (2017). Investigation of the water requirement of rapeseed crop under climate change conditions (case study: Khorasan Razavi province), master's thesis, Hakim Sabzevari University.

- Panahi, A., (2016). The relationship between air temperature and deep soil temperature and calculation of the penetration depth of glaciers in Semnan province, master's thesis, Hakim Sabzevari University.
- Moqiseh, M., (2016). Identification and monitoring of dust storms in the west and southwest of Iran using remote sensing technology, Master's thesis, Hakim Sabzevari University.
- Kandchini, M., (2016). Estimation of actual evaporation and transpiration using Sabal algorithm and Landsat satellite images in Gilan province, Master's thesis, Hakim Sabzevari University.
- Golmohammadi, F., (2016). Evaluating the country's rainfall changes in the coming decades using climate change scenarios, master's thesis, Hakim Sabzevari University.
- Deliri, A., (2016). Consequences of climate change on yield and water requirement of rice crop in northern Iran, Master's thesis, Hakim Sabzevari University.
- Noushin-Noukhandan, F., (2016). Investigating the effects of climate change on the level of combated age of wheat (case study: Razavi Khorasan province), master's thesis, Hakim Sabzevari University.
- Ahmadi, H., (2016). Investigating the effects of climate change on apple trees in Iran, PhD thesis, Hakim Sabzevari University.
- Hardani, A., (2015). Runoff estimation by SWMM method; A case study of the Karun watershed, master's thesis, Hakim Sabzevari University.
- Dadashi-Roudbari, A.A (2014). Flood evaluation of Haraz watershed using HEC-HMS mathematical model, statistical analysis, master's thesis, Hakim Sabzevari University. GIS.
- Kodkhoda, E., (2014). Investigating the impact of climate change on the water supply sources of Mashhad city and forecasting the future, Master's thesis, Hakim Sabzevari University.
- Fakheri, M., (2013). Climatic feasibility of saffron cultivation in West Azerbaijan province using AHP method, master's thesis, Hakim Sabzevari University.
- Rezaei, H., (2013). Investigation of climatic potentials for the development of tourism in Razavi Khorasan province, Master's thesis, Hakim Sabzevari University.
- Noodehi, O., (2013). Investigating the relationship between early fall and late spring frosts on the yield of some garden crops in Razavi Khorasan province, Master's thesis, Hakim Sabzevari University.
- Kolahdrazi, M., (2013). Study of the effect of climate change on bioclimatic components in Razavi Khorasan, master's thesis, Hakim Sabzevari University.
- Javadi, Z., (2013). The role of weather parameters on the performance of garden crops (Sabzevar case study), master's thesis, Hakim Sabzevari University.
- Mohammadi R., (2013). Forecasting the rainfall of the crop year using temperature parameters (case study of Razavi Khorasan province, master's thesis, Hakim Sabzevari University.

ADVISING EXPERIENCE (MSc and PhD)

• Asadollahi, A., (2017). Analyzing the number of frost days in South Khorasan province with a climate change approach, Master's thesis, Hakim Sabzevari University.

- Azizi, Z., (2016). Examining the seasonal pattern of mental states (depression) among students of Hakim Sabzevari University, Master's thesis, Hakim Sabzevari University.
- Moradian, M., (2016). Soil surface moisture modeling using optical and thermal remote sensing data, Master's thesis, Hakim Sabzevari University.
- Alavi, M., (2015). The effects of climate change on pomegranate cultivation areas (case study: Razavi Khorasan province), master's thesis, Hakim Sabzevari University.
- Kasalkheh, A.M., (2014). Investigating the relationship of remote linkage patterns with temperature fluctuations and precipitation in the cold season of northeastern Iran, master's thesis, Hakim Sabzevari University.
- Shojaei, T., (2013). Analysis and statistical analysis of dust storms in South Khorasan province, master's thesis, Hakim Sabzevari University.
- Amini, R., (2013). Climatic assessment of grape cultivation in the northeast of the country, Master's thesis, Hakim Sabzevari University.
- Zarandi, S.A., (2013). Analysis of temperature and rainfall in Razavi Khorasan province, master's thesis, Hakim Sabzevari University.
- Shayganfar, E., (2013). Study of the effect of climate change on the level of groundwater stagnation in the Sabzevar plain, master's thesis, Hakim Sabzevari University.
- Dehnavi, M., (2013). The effect of climate on urban accidents (case study of Neishabur city), Master's thesis, Hakim Sabzevari University.