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Click on the icon to change

Skills

Technical skills

- Satellite RS
- UAV RS
- GPS-RTK
- Aerial LiDAR
- GEE
- TLS
- AI

Academic Skill

- Teaching
- Research
- Management
- Collaboration

Hormoz Sohrabi

Associate Prof. Department of Forest Science and Engineering, Tarbiat Modares University (TMU)

Experience

2021 - Present — **Vice-chancellor for Educational Affairs**
Vice-chancellor for Educational Affairs of the Faculty of Natural Resource and Marine Sciences, Tarbiat Modares University

2016 - Present — **Associate Professor**
Associate Professor, Tarbiat Modares University

2011 - 2016 — **Assistant Professor**
Assistant Professor, Tarbiat Modares University

2010 - 2011 — **Vice-chancellor for Educational Affairs**
Vice-chancellor for Research and Academy Affair of Fac ulty of Natural Resource and Earth Science, University of Shahrekord

2009 - 2011 — **Assistant Professor**
Assistant Professor, University of Shahrekord

Education

Ph.D. of Forestry, Tarbiat Modares University
Forest Remote Sensing | 2004 - 2009
Thesis: Application of visual and numerical interpretation of aerial images in forest inventory

M.Sc. of Forestry, Tarbiat Modares University
Statistical Ecology | 2002 - 2004
Thesis: Statistical analysis of ecosystem units of Quercus infectoria olive. site in Kermanshah Province

B.Sc. of Forestry Kurdistan University
Forest Management | 1998 - 2002
Final Project: Statistical analysis of spatial distribution pattern of oak trees if Zagros forests

Courses

2010 - Present
Forest remote sensing
M.Sc. degree at TMU

2010 - Present
Advanced forest remote sensing
Ph.D. degree at TMU

2010 - Present
Forest biometrics
M.Sc. degree at TMU

2009 - Present
Advanced forest sampling methods
Ph.D. degree at TMU

2020 - 2021
Design and analysis of experiments for natural sciences
MSc degree at TMU

2009 - 2010
Advanced statistical methods
B.Sc. at SKU

2009 - 2010
Research methodology
B.Sc. at SKU

2009 - 2010
Forest measurement
B.Sc. SKU

Selected Publications

- Izadi, Somayeh; Sohrabi, Hormoz; Khaledi, Majid Jafari; 2022, Estimation of coppice forest characteristics using spatial and non-spatial models and Landsat data, Journal of Spatial Science, 67 1 143-156
- Miraki, M; Sohrabi, H; 2022, Using canopy height model derived from UAV imagery as an auxiliary for spectral data to estimate the canopy cover of mixed broadleaf forests, Environmental monitoring and assessment 194 1 44572
- Miraki, M; Sohrabi, H; Esmailzadeh, O; 2022, Sex discrimination of individual trees using UAV imagery The International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences 43 921-926
- Daryaei, Ardalan; Sohrabi, Hormoz; Atzberger, Clement; Immitzer, Markus; 2021, Mapping vegetation in riparian areas using pixel-based and object-based classification of Sentinel-2 multi-temporal imagery, Iranian Journal of Remote Sensing & GIS 13 3 19-32
- Izadi, Somayeh; Sohrabi, Hormoz; 2021, Using Bayesian kriging and satellite images to estimate above-ground biomass of Zagros mountainous forests Forest Resources Resilience and Conflicts 193-201
- Miraki, Mojdeh; Sohrabi, Hormoz; Fatehi, Parviz; Kneubuehler, Mathias; 2021, Detection of mistletoe infected trees using UAV high spatial resolution images, Journal of Plant Diseases and Protection 128 6 1679-1689
- Yavari, Farzad; Sohrabi, Hormoz; 2021, Modeling biomass of coppice Persian oak forests using metrics extracted from aerial laser scanner (LiDAR) data, Journal of Environmental Science and Technology 23 10 133-147
- Miraki, Mojdeh; Sohrabi, Hormoz; Fatehi, Parviz; Kneubuehler, Mathias; 2021, Individual tree crown delineation from high-resolution UAV images in broadleaf forest, Ecological Informatics 61 101207
- Daryaei, Ardalan; Sohrabi, Hormoz; Atzberger, Clement; Immitzer, Markus; 2020, Fine-scale detection of vegetation in semi-arid mountainous areas with focus on riparian landscapes using Sentinel-2 and UAV data, Computers and Electronics in Agriculture 177 105686
- Safari, Amir; Sohrabi, Hormoz; 2020, Integration of synthetic aperture radar and multispectral data for aboveground biomass retrieval in Zagros oak forests, Iran: an attempt on Sentinel imagery International, Journal of Remote Sensing 41 20 8069-8095
- Safari, Amir; Sohrabi, Hormoz; 2020, Using the bootstrap approach for comparing statistical modeling methods to estimate remotely-sensed aboveground biomass in Zagros forests, Journal of RS and GIS for Natural Resources 11 2 49-67
- Golshani, Parisa; Maghsoudi, Yasser; Sohrabi, Hormoz; 2020, Investigating the effect of leaf-on and leaf-off canopy on PALSAR-2 data with the aim of estimating above-ground biomass in Hyrcanian Forests, Scientific-Research Quarterly of Geographical Data (SEPEHR) 29 114 51-65

Journal Publications (Selected)

- Miraki, M; Sohrabi, H; Fatehi, P; Kneubuehler, M; 2020, Comparison of Machine Learning Algorithms for Broad Leaf Species Classification Using UAV-RGB, Images Journal of Geomatics Science and Technology 10 2 44571
- Izadi, Somayeh; Sohrabi, Hormoz; 2020, Estimating the Spatial Distribution of Above-ground Carbon of Zagros Forests using Regression Kriging, Geographically Weighted Regression Kriging and Landsat 8 imagery, Journal of Environmental Science and Technology
- Yavari, Farzad; Sohrabi, Hormoz; 2019, Estimation of Available Canopy Fuel of Coppice Oak Stands Using Low-Density Airborne Laser Scanning (LiDAR) Data, Advances in Remote Sensing and Geo Informatics Applications 171-173
- Golshani, Parisa; Maghsoudi, Yasser; Sohrabi, Hormoz; 2019, Relating ALOS-2 PALSAR-2 Parameters to Biomass and Structure of Temperate Broadleaf Hyrcanian Forests, Journal of the Indian Society of Remote Sensing 47 5 749-761
- Safari, Amir; Sohrabi, Hormoz; 2019, Effect of climate change and local management on aboveground carbon dynamics (1987–2015) in Zagros oak forests using Landsat time-series imagery, Applied Geography 110 102048
- Sadeghi, S; Sohrabi, H; 2019, The effect of UAV flight altitude on the accuracy of individual tree height extraction in a broad-leaved forest The International Archives of the Photogrammetry, Remote Sensing, and Spatial Information Sciences 42 4 W18
- Kargar, Mohammad Reza; Sohrabi, Hormoz; 2019, Using canopy height model derived from UAV images to tree height estimation in Sisangan forest, Journal of RS and GIS for Natural Resources 10 3 106-119
- Kargar, Mohammad Reza; Sohrabi, Hormoz; 2019, Estimation of Tree Biomass at Individual tree, Sample plot and Hybrid Level using Drone Images, Engineering Journal of Geospatial Information Technology 7 3 213-230
- Daryaei, Ardalan; Sohrabi, Hormoz; Puerta-Pinero, Carolina; 2019, How does light availability affect the aboveground biomass allocation and leaf morphology of saplings in temperate mixed deciduous forests?, NEW FORESTS 50 3 423-423
- Sohrabi, Hormoz; 2018, Adaptive k-tree sample plot for the estimation of stem density: An empirical approach, Journal of Forest Science 64 1 17-24
- Safari, Amir; Sohrabi, Hormoz; Powell, Scott; 2018, Comparison of satellite-based estimates of aboveground biomass in coppice oak forests using parametric, semiparametric, and nonparametric modeling methods, Journal of Applied Remote Sensing 12 4 46026
- Safari, Amir; Sohrabi, Hormoz; Powell, Scott; Shataee, Shaban; 2017, A comparative assessment of multi-temporal Landsat 8 and machine learning algorithms for estimating aboveground carbon stock in coppice oak forests, International Journal of Remote Sensing 38 22 6407-6432

Link to All Publications

Researchgate
https://researchgate.net/profile/hormoz-sohrabi

Google Scholar
https://scholar.google.com/citations?user=WdisuWgAAAAJ&hl=en

Research Projects

ongoing — **Estimation of water requirements for plantations in arid lands using a database derived from UAV imagery**
funded by Mobarakeh Steel Company

ongoing — **Estimation of mangrove carbon stored in soil and aboveground in the Persian gulf using satellite imagery and UAV data**
funded by Iran National Science Foundation

2022 — **Designing a web-based system for management of national forest inventory**
funded by Forests, Rangeland, and Watershed Management Organization

2021 — **Detection of riparian and out-of-forest trees from satellite and UAV imagery using pixel and object-based methods**
funded by Iran National Science Foundation

2020 — **Manual and android application for National Forest Inventory (Hyrcanian Forests)**
Referee publication

2019 — **Assessing the potential of UAV imagery for deriving trees cadastre**
funded by Landscape and green space organization

2018 — **Building a Multiple_Use Forest Management Framework to Conserve biodiversity in the Caspian Hyrcanian Forest Landscape**
Funded by NDP as a partof UNDP project

2008 — **Potential of UltracamD aerial images for mapping type and density of forest with the scale of 1:5000 and preparing cadastre maps of national lands with the scale of 1:2000, funded by Forests**
funded by Forests, Rangeland, and Watershed Management Organization

Supervised Thesis (recent years)

M.Sc. Thesis
Mapping canopy cover density of Zagros forests using forest canopy density model derived from Sentinel 2 and Landsat 8 data of Spatial Science
On going
Ahmad Abbasivand

Ph.D. thesis
Individual Tree Crown Detection and Species Identification using UAV-based Data in a Hyrcanian Plain Broad-leaved Forest
2022
Mojdeh Miraki

Ph.D. thesis
Detection of riparian and out-of-forest trees from satellite and UAV imagery using pixel and object-based methods
2021
Ardalan Daryaei

Ph.D. thesis
Estimation of Individual Tree Height using Canopy Height Model Derived from Unmanned Aerial Vehicle (UAV) Images Captured in Leaf-on and Leafless Periods in Noor Plain Foreststssis
2020
Sima Sadeghi

M.Sc. Thesis
Phenology-Based Detection of Yew Stands Using Time Series of Satellite Imagery
2020
Mehri Abbasi

Ph.D. thesis
Mapping Aboveground Carbon of Persian Oak Forests Using Spatial Models and Remote Sensing Data
2019
Somayeh Izadi

Ph.D. thesis
The Effect of Local Management and Climate Change on Aboveground Carbon Stock in Zagros Oak Forests by Using Remote Sensing
2018
Amir Safari

M.Sc. Thesis
Estimation of Aboveground Biomass of Persian Oak Coppice Forests using LiDAR Data and Multispectral Aerial Images
2017
Farzad Yavari

M.Sc. Thesis
Modeling Aboveground Biomass of Persian Oak Using Canopy Height Models Derived from LiDar Data and Photogrammetric Matching of Aerial Images
2017
Azime Saeedi Abueshaqi

Journal Review and Editory

- **Remote Sensing Applications: Society and Environment**
- **Ecological Informatics**
- **Agriculture**
- **Land Degradation & Development**
- **Frontiers in Plant Science**
- **Computers and Electronics in Agriculture**
- **Journal of Sensors**
- **Journal of Forestry Research**
- **Journal of Applied Ecology**
- **Canadian Journal of Forest Research**
- **Guest editor for Remote Sensing Journal**
- **Associate Editor for Frontiers in Forests And Global Change**
- **Achievement**
- **Reviewer of Several Persian Scientific Journals**

Managed Field Projects

- **2011. Manager of inventory of forest mapping and typology project in Khorasan (800,000 ha)**
- **2006. Manager of inventory of forest mapping project in Kerman (800,000 ha)**
- **2006. Manager of inventory of forest mapping project in Sistan va Baloochestan (1,200,000 ha)**
- **2005. Manager of Inventory of multipurpose forestry project in Paveh, Kermanshah (40,000 ha)**
- **2005. Inventory of organizing and managing Galazani project, Baneh (5000 ha)**
- **2004. Inventory of study project in Javanrood (45 ha)**
- **2003. Inventory of forest management project in Khairoodkenar, Mazandaran (800 ha)**
- **2002. Inventory of study project in Marivan (1300 ha)**

Book and Book Chapters

Book Chapter
FOREST RESOURCES RESILIENCE AND CONFLICTS
Izadi, S., Sohrabi, H. | 2021
Elsevier

Boock Chapter
ADVANCES IN REMOTE SENSING AND GEO INFORMATICS APPLICATIONS
Yavari, F, Sohrabi, H. | 2018
Srpinger

Book
INTRODUCTORY STATISTICS FOR NATURAL RESOURCES SCIENCES
Hormoz Sohrabi | 2012
Jahad DaneshGahi Publications

Scientific Honors (As student)

- **An excellent student of the M.Sc. course (2003)**
- **First-grade student of graduates (2004)**
- **First grade in the Ph.D. entrance exam (2005)**
- **An excellent student in the Ph.D. course (2006)**
- **To have Elect Grade by Science, Research and Technology Ministry (2007)**
- **To have Brilliant Talent by Tarbiat Modares University (2008)**
- **First-grade student of graduates (2009)**