Ali Khodagholi

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RESEARCH INTERESTS

⋄ Climate Change and Adaption Agriculture

⋄ Multi-Objective Optimization

⋄ Water Resources Planning and Management

⋄ Crop Simulation Model

EDUCATION

⋄ Iran University of Science and Technology, Tehran, Iran   (2018 - 2021)
Master of Science in Water Resources Management
Overall GPA: 18.92/20 (3.88/4.00)
Thesis Topic: Impacts of Climate Change on Irrigation Scheduling for Crops: Case Study Potato
Advisers: Prof. Abbas Afshar, and Dr. Saeed Soufizadeh

- Calibration of the SUBSTOR-Potato using GLUE model
- Generating future climate data using LARS-WG
- Simulation and optimization of crop growth using the DSSAT model
- Finding an optimum trade-off between water and nitrogen resources using meta-heuristic algorithm

⋄ Iran University of Science and Technology, Tehran, Iran   (2014 - 2018)
Bachelor of Science in Civil Engineering
Overall GPA: 16.68/20 (3.41/4.00)
Thesis Topic: Multi-objective optimization for sustainable groundwater management
Advisers: Prof. Abbas Afshar

HONORS & AWARDS

⋄ Ranked within the Top 1% among approximately 250,000 participants in the National Entrance Exam for Iranian universities   (2014)

⋄ Ranked within the top 20% among students of Civil Engineering at the end of Bachelor's degree, Iran University of Science and Technology.   (2018)

⋄ Direct master of science at IUST accepted as a highly ranked student   (2018)

⋄ Ranked **1st** in the M.Sc. Water Resources Management - Iran University of Science and Technology (2021)

PUBLICATIONS

⋄ Abbas Afshar, Mohamad Amin Tavakoli, and **Ali Khodagholi**. "Multi-Objective Hydro-Economic Modeling for Sustainable Groundwater Management", Water Resources Management, DOI: 10.1007/s11269-020-02533-4   (Cited by: 18)

⋄ Ali Kaveh, Pouya Almasi, and **Ali Khodagholi**. "Optimum design of castellated beams using four recently developed meta-heuristic algorithms", Iranian Journal of Science and Technology, Transactions of Civil Engineering, DOI: 10.1007/s40996-022-00884-z   (Cited by: 11)

⋄ **Ali Khodagholi**, Abbas Afshar , and Saeed Soufizadeh. "Optimization modeling of irrigation and nitrogen management under climate change for potato using SUBSTOR-Potato (DSSAT) model", under preparation.

⋄ Mohammadmahdi Arabbafrani, **Ali Khodagholi**, and Reza Kerachian . "A Framework for Seasonal Groundwater Banking: A Case Study", under submission.

ACADEMIC PROJECTS	◇ Soil-crop dynamic simulation based on FAO using MATLAB
	◇ Water allocation of reservoir and river system simulation using WEAP
	◇ Optimizing reservoir operation using Lingo
	◇ Prediction of flood hydrograph using HEC-HMS
	◇ Finding flood zones for flood management using HEC-RAS and ArcGIS
	◇ Calculation of soil erosion based on RUSLE model using ArcGIS and ENVI

TEACHING EXPERIENCE	◇ Teaching Assistant of Water Resources System Analysis and Management (2019) for Dr. Alizadeh.
	◇ Teaching Assistant of Engineering Hydrology (2018 - 2019) for Dr. Zahabiyoun.
	◇ Teaching Assistant of Mechanic of Material (2017 - 2018) for Dr. Ghaderi.
	◇ Teaching Assistant of Concrete Technology (2016) for Dr. Famili.

SELECTED COURSES	◇ Water Resources Systems Analysis and Management Instructor: Dr. Alizadeh	20/20
	◇ Advanced Engineering Hydrology Instructor: Dr. Zahabiyoun	19.25/20
	◇ Flood and Drought Management Instructor: Prof. Afshar	19.2/20
	◇ Risk, Uncertainty and Reliability Analysis Instructor: Dr. Alizadeh	20/20
	◇ Application of RS and GIS in Civil Engineering Instructor: Dr. Mojaradi	18.5/20

TECHNICAL SKILLS	◇ Expert in Programming with MATLAB, Python, C++, and Visual Basic.
	◇ Expert in Water Resources and Agriculture Software: WEAP, ArcGIS, HEC-HMS, Lingo, DSSAT, and LARS-WG.
	◇ Fully familiar with Soft Computing, Meta-heuristic Optimization, and Crop Simulation Models.

LANGUAGE SKILLS	◇ **Persian:** Native
	◇ **TOEFL:** 99
	◇ **GRE:** General test will be taken on November 20th, 2023

WORK EXPERIENCE	◇ Founder and Programmer of Online Game	(2021 - up to now)
	◇ Designer in Mahab Ghods, Water Reservoir Projects in Tabriz and Zanjan	(2017)
	◇ Head of the Scientific Society of Civil Engineering at Iran University of Science and Technology, Tehran, Iran	(2016 - 2017)
	◇ Editor-in-chief in Cement and Concrete Journal at at Iran University of Science and Technology, Tehran, Iran	(2015 - 2016)