Onur Cem Yologlu

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Professional Summary:

I am an Environmental Engineer experienced in groundwater modeling, environmental data analysis, and stakeholder engagement. I am passionate for developing sustainable solutions for water resource management. I have considerable experience in GIS environment and programming languages such as Python and Matlab. I am interested in contributing to interdisciplinary research and practical applications in climate adaptation and groundwater management.

Education

Boğaziçi University **10.2020-09.2023**
Environmental Science - Master of Science
Thesis Title: Modelling The Impact of Climate Change on Groundwater Resources: Case Study of Konya Closed Basin
Cumulative GPA: 4.00/4.00

Middle East Technical University **09.2015-07.2020**
Environmental Engineering - Bachelor of Science
Cumulative GPA: 3.06/4.00

Experience

Tender Specialist for Environmental Projects **12.2023-Present**
Assystem

- Communicating with clients and teammates to gather information regarding project budgets, schedule and objectives and optimize plans.
- Determining project scopes, boundaries, time frame and possible complications to produce accurate estimates.

Research Fellow **5.2021-10.2023**
Boğaziçi University

- Collaborated with stakeholders to identify problems of the basin such as drought, depletion of groundwater, water quality and soil quality.
- Utilized geostatistical techniques to interpolate data points precisely, ensuring detailed spatial representations.
- Estimated groundwater recharge by using surface-subsurface groundwater model on UZF-MODFLOW model.
- Simulated calibrated model with five agricultural management scenarios under seventeen regional climate models (RCMs) to assess groundwater budget of the basin.
- The groundwater level drop was around 0.42 meters between 2000 and 2022.
- Business as usual scenario shows that the drop will be 0.62 meters in agricultural lands between 2023 and 2040.
- On the other hand, through improved irrigation efficiency and reverting to traditional rainfed crops, it is shown that groundwater water drop can be reversed to net increase of 0.04 meters/year for the same period allowing for more sustainable use of the groundwater resource.
- Prepared report to inform stakeholders and governmental bodies such as State Hydraulic Work

Environmental Engineer **9.2020-4.2021**
Turkish Steel Producers' Association

- Conducted thorough examinations of standards, regulations, and drafts, contributing to the formation of sectoral opinions.
- Prepared environmental quality management plan to show the impact of steel slag use as building material on water quality and environment.

Publication

Secci, D., Saysel, A. K., Uygur, İ., Yoloğlu, O. C., Zanini, A., & Copty, N. K. (2024). Modeling for sustainable groundwater management: Interdependence and potential complementarity of process-based, data-driven and system dynamics approaches. Science of The Total Environment, 951, 175491. https://doi.org/10.1016/J.SCITOTENV.2024.175491

Selected Conference Presentations

Secci, D., Saysel, A. K., Uygur, I., Yologlu, O. C., Zanini, A., Copty, K.N.(2024, June). Process-based, Surrogate and System Dynamics Modeling for Enhanced Management of Groundwater Resources. 15th International Conference on Geostatistics for Environmental Applications, Chania, Greece, 19-21 June 2024. https://doi.org/10.5281/zenodo.12796801

Yologlu, O. C., Uygur, I., Copty, K.N., Daloglu Çetinkaya, I., Saysel, A. K. (2023, April). Evaluation of Different Water Management Practices for the Sustainable Use of Groundwater Resources in the Konya Closed Basin. EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-8796, https://doi.org/10.5194/egusphere-egu23-8796

Uygur, I., Yologlu, O. C., Copty, K.N., Daloglu Çetinkaya, I., Saysel, A. K. (2023, April). Partial validation of a socio-economic system dynamics model against a process based hydro-geological model. EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-3417, https://doi.org/10.5194/egusphere-egu23-3417

Daloglu Çetinkaya, I., Uygur, I., Saysel, A. K., Yologlu, O. C., Copty, N. (2022, October). Groundwater use in a semi-arid area: Governance of an overexploited resource. Sustain Valencia, Valencia, Spain, 6-8 October 2022. https://doi.org/10.5281/zenodo.8247521

Yologlu, O. C., Copty, N., Tunca, M.C., Daloglu, I., Saysel, A. K. (2022, September). Regional-Scale Modeling of Surface-Subsurface Flow: The Konya Closed Basin Case Study. 7th IAHR EUROPE CONGRESS, Athens, Greece, 7-9 September 2022. https://doi.org/10.5281/zenodo.8383837

Technical Skills

Programming Languages: Python, R, MATLAB, Google Earth Engine, LaTeX
Softwares: QGIS, ArcGIS, Modflow, ModelMuse, MS Excel, MS Word

Involved Projects

Innovative and Sustainable Groundwater Management in the Mediterranean
My main task in the project was to estimate groundwater recharge in the Konya Closed Basin, a semi-arid region with extensive agricultural lands. I engaged in multiple interactive sessions with farmers and policymakers to explain the causes and results of groundwater depletion. Within InTheMED project, I participated in machine learning model development and system dynamic model development, to compare different modeling approach with process based model.

Smart Campus Project
Collaborating with my team, our primary focus centered on crafting sustainable and intelligent transportation solutions within the METU campus environment. Our main achievement was the creation of METUNAVI, a platform rewarding pedestrians and hitchhikers with incentives. This initiative aimed to promote eco-friendly mobilization within campus.

Scholarships & Honors

- DAAD Scholarship for 5th International Summer School on Managed Aquifer Recharge at HTW Dresden. Dresden, Germany. (July 2023)
- Placed honor(x2) and high honor(x2) roll of Middle East Technical University.