Onur Cem Yologlu

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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
Advisor: Prof. Dr. Nadim Copty
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

COMPUTER SKILLS

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

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

- Developed of 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.
- Collaborated with stakeholders to identify problems of the basin such as drought, depletion of groundwater, water quality and soil quality.
- Gathered and analyzed diverse data sets from various sources to extract insights and identify trends accurately such as groundwater level and water quality.
- Utilized geostatistical techniques to interpolate data points precisely, ensuring detailed spatial representations.
- 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.

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. I simulated calibrated models under five agricultural management scenarios using seventeen regional climate models to predict future of

groundwater resources. 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
I engaged in design thinking and interdisciplinary problem-solving methodologies at Middle East Technical University (METU) Design Factory. 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 like campus stickers, free tickets to art events, and discounts at the bookstore. This initiative aimed to promote eco-friendly mobilization within campus.

CONFERENCE PROCEEDING

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

Khandandel, M., Yologlu, O. C., Secci, D., Todaro, V., Daloglu Çetinkaya, I., Copty, K.N., Saysel, A. K. (2023, April). Drought Risk Assessment for an Agricultural Basin in Turkey using SPEI and SPI. EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-8726, https://doi.org/10.5194/egusphere-egu23-8726

Secci, D., Todaro, V., Yologlu, O. C., Copty, K.N., Daloglu Çetinkaya, I., D'Oria, M., Saysel, A. K., Tanda, M.G., Zanini, A. (2023, April). An artificial neural network as a quick tool to assess the effects of climate change and agricultural policies on groundwater resources. EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-5801, https://doi.org/10.5194/egusphere-egu23-5801

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

Yologlu, O. C., Copty, N., Uygur, I., Tunca, M.C., Bal, E., Yetisti, B., Daloglu, I., Saysel, A. K. (2022, June). Coupled Surface-Subsurface Hydrological Model for the Estimation of Net Recharge of the Konya Closed Basin, Turkey. 14th International

Conference on Geostatistics for Environmental Applications, Parma, Italy, 22-24 June 2022. https://doi.org/10.5281/zenodo.8383812

Yologlu, O. C., Alp E. (2020, December). Investigation of Low Impact Development Potential for a Densely Populated Area in a Semi-arid Climate. AGU Fall Meeting 2020, Online, 1-17 December 2020. https://agu.confex.com/agu/fm20/meetingapp.cgi/Paper/724492

SCHOLARSHIPS & HONORS

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

REFERENCES

- Prof. Dr. Nadim K. Copty
  Bogazici University, ncopty@boun.edu.tr
- Prof. Dr. Ulku Yetis
  Middle East Technical University, uyetis@metu.edu.tr
- Asst. Prof. Dr. Irem Daloglu Cetinkaya
  Bogazici University, irem.daloglu@bogazici.edu.tr