



K.N. Toosi
University of Technology



Postdoctoral Research Associate Positions at SHENS Lab

The Sustainable Hydro-ENvironmental Systems (SHENS) Lab at K.N. Toosi University of Technology (KNTU), in collaboration with Connect ISTI, and the Organization for Development of International Science and Technology Cooperation (ODISTC), is seeking two full-time, highly motivated Postdoctoral Research Associates for interdisciplinary research projects funded and hosted under the joint agreement no. 11/134939, 2025 between the ODISTC and KNTU. The selected candidates will contribute to cutting-edge research at the intersection of hydrodynamic and ecological modeling, leveraging Python and cloud-based computing to develop advanced simulations and analytical tools, and techniques. This is a one-year term position starting from October 1st, 2026, with the possibility of extension, contingent upon work performance and funding availability.

The SHENS Lab at KNTU was developed with projects focusing on climate change and sea-level rise effects on water bodies, including coasts, lakes, oceans, bays, and other water resources. The lab members are working on interdisciplinary projects mainly designed to increase the resiliency of ecological and environmental systems and sustainable infrastructures incorporating natural and nature-based features.

Key Responsibilities:

- Develop and optimize hydrodynamic and ecological models using Python
- Implement cloud-based computational frameworks for large-scale simulations
- Collaborate with an interdisciplinary team of scientists and engineers
- Publish high-impact research in peer-reviewed journals
- Supervise graduate and undergraduate students

Required Qualifications:

- Ph.D. in Civil and Environmental Engineering, Ecology, Computational Science, or a related field
- Strong proficiency in Linux, Python, Bash-Scripting, and cloud-based computing
- Experience in coastal, hydrodynamic, and ecological modeling
- Demonstrated ability to work in an interdisciplinary research environment

What We Offer:

- Competitive salary and funding support
- Collaboration with leading researchers and institutions
- Computing facilities, and opportunities for innovation and professional growth
- Flexible work schedules can be arranged

How to Apply:

Interested candidates should submit their **CV**, **cover letter**, and **relevant publications** to Dr. Karim Alizad (Alizad@kntu.ac.ir).



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