PERSONAL INFORMATION

Neda Khosravi

 1st Unit, No.21, Shodja-Abyaneh Alley, Meghdad St.,
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Gender Female | Date of birth 3 July 1987

Nationality Iranian

RESEARCH INTERESTS

Water Resources Management, Artificial Intelligence in Hydrology, Contaminant Transport Modeling

EDUCATION

2010 – 2013
M. Sc. in Civil and Environmental Engineering

Sharif University of Technology - Tehran, Iran.
- Total GPA: 17.32/20
- Thesis: "Prediction of Air Pollutant Levels in Tehran Using NARX Neural Networks", under supervision of Dr. Arhmai

2005 – 2010
B. Sc. in Civil Engineering

Tabriz University of Technology - Tabriz, Iran.
- Total GPA: 16.56/20
- Rank 3rd in civil engineering department among 45 students.

SELECTED COURSES

Spring 2010-2011	Numerical Methods in Hydrology Engineering,(18.1/20, 2nd Rank), Dr. Ataei
Spring 2010-2011	Process Principles in Environmental Engineering,(18.3/20, 2nd Rank), Dr. Arhami
Spring 2010-2011	Water Resource Quality Management,(16/20), Dr. Tajrishi
Spring 2010-2011	Environmental Engineering Laboratory, (17.5/20, 3rd Rank)
Fall 2010-2011	Air Pollution and Control Methods,(17.4/20,3^{rd} Rank), Dr. Arhami

HONORS

- Ranked 205th in the national graduate program entrance exam (locally said as Konkoor): 205/20000.
- Ranked 3rd in civil and environmental engineering department at Tabriz university: 3/45.
- ranked amongst the top 1 percent of all the participants in the national university entrance exam
- Ranked 1st Among 60 Pupils in Pre-University and High School Education.
- Member of Association of young mathematicians.

WORK EXPERIENCE

Sep 2015 – Present
Lecturer

SADRA Institute of Higher education Koohsar Blvd., Tehran, Iran.

— Teaching environmental engineering course (undergraduate)
— Teaching construction materials course (undergraduate)

December 2015 – Present	**Senior Expert**

Supervisor: Dr. Arhami
Sharif University of Technology, Azadi Avenue, Tehran, Iran.

Development of a web site to demonstrate forecasting of hourly air pollutants concentration for Tehran Air Quality Control stations

May 2013 – January 2015	**Surface Water Expert**

Omran Mohit Zist consulting Company, Tehran, Iran.

Implementation of the Surface Water Collection Master plan in Zones 6 and 20 of the City of Tehran

— Assist in creating detailed map of surface water collection network and its comprehensive data base using ArcGIS
— Delineation and modification of municipal watersheds and basins and calculation of basin's data such as area, slope, mean elevation, and maximum flow distance in WMS software
— Performing rainfall-runoff modelling to control maximum hydraulic capacity of existing channels and conduits and redesign new ones based on current demand using Bentley Storm-CAD.

ACADEMIC ACCOMPLISHMENTS

Sep 2010 – January 2013	## Research Assistant in Sharif University of Technology, Tehran, Iran.

— For my Master of Science thesis, we studied hourly time series of NO_2, CO, O_3, and PM_{10} at each Tehran AQCC (Air Quality Control Company) stations, which suffers from a sever air pollution issue. We developed a model to forecast hourly pollutant levels k hours ahead (1, 2, 3, ...,72) in AQCC stations using non-linear autoregressive model with exogenous input (NARX). Moreover, the second purpose of our study was to assess whether relevant meteorological parameters, such as, Monin-Obukhov length, mixing height and stability classes can improve multi-step-ahead prediction of model. We developed a preprocessor to calculate these parameters based on predictable meteorological data.

— For the projects of "numerical method in hydrology engineering" course under supervision of Dr. Aataei, I wrote some MATLAB and Mathematica codes to solve following problems numerically:

* One dimensional advection and the advection-diffusion equation employing FTCS scheme, CTCS scheme, and Crank-Nicolson method.
* Two dimensional diffusion equation using Crank-Nicolson and ADI method
* Two dimensional laplace equation using finite element method.

— For the projects of "Water Resource Quality Management" course, I worked on a project to evaluate water quality in Zarinerood River under supervision of Dr. Tajrishi.
— Modelling of gravity current produced by lock exchange to assess horizontal speed of front current in environmental hydrodynamic laboratory under supervision of Dr. Jamali.

COMPUTER SKILLS

Mathematical Analysis Software	expert in MATLAB; MATHEMATICA; MATHCAD
Computer-Aided Design Software	skillful at Bentley StormCAD; AutoCAD
Spatial Analysis Software	experience with ArcGIS
Civil engineering Software	skillful at WMS; ETABS; SAFE

Scientific Publishing Software	Latex; WinEdt

PUBLICATIONS

In preparation	"Prediction of Air Pollutant Levels in Tehran Using NARX Neural Networks", M. Arhami and N. Khosravi

HOBBIES

Mountain Climbing, Swimming, Movies, Group Activities

REFERENCES

Dr. Mohammed Arhami	Assistant Professor, Civil Engineering, Sharif University of Tech, Iran. (e-mail: arhami@sharif.edu; phone: +98-21-66164240)
Prof. Vahid Nourani	Professor, Civil Engineering, Tabriz University, Iran. (e-mail: nourani@tabrizu.ac.ir; phone: +98-41-33392409)