



ADELL MORADI SABZKOUHI

Position: Assistant Professor

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Google Scholar: <https://scholar.google.com/citations?user=kaWuLIwAAAAJ&hl=en>

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EDUCATION BACKGROUND

Ph.D., in Civil Eng.-Hydraulics, Dept. of Civil Eng., Faculty of Eng., Shahid Chamran University (SCU), Ahvaz, Iran. 2013-2018

Thesis Title: *Development of Mathematical Modeling for Fuzzy “Analysis-Design” of Pipe Networks under Uncertainty*, **Supervisor:** Prof. Ali Haghghi

M.Sc. in Irrigation Structures, 2006, Faculty of Water Sciences Engineering, Shahid Chamran University (SCU), Ahvaz, Iran,

Thesis Title: Investigation the Effects of Drop Structures Geometry and Hydraulic Characteristics on Energy Dissipation Using Physical Modeling,

Supervisor: Prof. Mahmood Kashefipour & Dr. Mahmood Bina

B.Sc. in Irrigation Engineering, 2003, Department of Irrigation Engineering, Shahid Chamran University (SCU), Ahvaz, Iran

RESEARCH INTERESTS

Hydraulics and Optimization of Hydro-systems, Multi-objective Optimization Models, Hydro-Systems Planning and Management, Uncertainty Analysis, AHP, Meta-heuristic Optimization Algorithms.

SELECTED PUBLICATION

Minaei, A., **Sabzkouhi, A.M.**, Haghghi, A. and Creaco, E., 2020 “*Developments in Multi-Objective Dynamic Optimization Algorithm for Design of Water Distribution Mains*” *Journal of Water Resources Management*, Springer, 34(9), 2699–2716. <https://doi.org/10.1007/s11269-020-02559-8>

Zahiri, J. and **Moradi Sabzkouhi, A.**, 2020 “*Uncertainty and Accuracy Analysis of Longitudinal Dispersion Coefficient Estimation Methods in Rivers*” Journal of Water and Soil, 34(4): 813-825. (in Persian) DOI: 10.22067/JSW.V34I4.85364

Shirjandi, Sh., Khademalrasoul, A., **Moradi Sabzkouhi, A.**, Amerikhah, H., 2020, “*Optimal Placement of Gabions Using AHP and NSGA-II Algorithm (Case Study: Emamzadeh Watershed)*” Agricultural Engineering., 43(3): 315-330 (in Persian), DOI:10.22055/AGEN.2020.31651.1522

Sabzkouhi, A. M., & Haghghi, A., 2018 “*Uncertainty Analysis of Transient Flow in Water Distribution Networks*”, Journal of Water Resources Management, Springer, 32(9):1-18. DOI: 10.1007/s11269-018-2023-4

- **Sabzkouhi, A. M.**, & Haghghi, A., “*Analysis of Hydraulic Stress Effects on the Performance of Water Distribution Networks Using Interval Analysis and Optimization Approach*”, Iranian Journal of Water and Wastewater, 30(3): 1-16. (In Persian), DOI:10.22093/wwj.2018.97826.2487.
- **Sabzkouhi, A. M.**, & Haghghi, A. (2018). “*Closure to Uncertainty Analysis of Pipe-Network Hydraulics Using a Many-Objective Particle Swarm Optimization.*”, Journal of Hydraulic Engineering, 144(4): 07018002. DOI: 10.1061/(ASCE)HY.1943-7900.0001148
- **Sabzkouhi, A. M.**, Haghghi, A., and Minaie, A., (2017), “*Investigation of Uncertainty Effects on Hydraulic Performance of Water Distribution Networks Using the Fuzzy Sets Theory*”, 37th IAHR World Congress, Kuala Lumpur, Malaysia
- **Sabzkouhi, A.M.** and Haghghi, A., (2016), “*Uncertainty Analysis of Pipe-Network Hydraulics Using a Many-Objective Particle Swarm Optimization.*” J. Hydraul. Eng., ASCE, [10.1061/\(ASCE\)HY.1943-7900.0001148](https://doi.org/10.1061/(ASCE)HY.1943-7900.0001148) , 04016030.
- Minaie, A., Haghghi, A., Ghafouri, H. and **Sabzkouhi, A.M.**, (2016), “*Optimal Design of Water Distribution System Based on Urban Areas Expansion Using a Self-adaptive Multi-objective NSGA-II*”, 3rd Iranian National Conference on Applied Research in Civil Engineering, Architecture and Urban Management - in Persian
- **Sabzkouhi, A.M.**, Kashefipour, M. and Salimi Ch., Atena, (2014), “*A Field Study on Peak Demand Factor of Rural Water Distribution Networks (North-Eastern Part of Khuzestan Province, Iran)*”, Iranian Journal of Water and Wastewater, Vol. 89, pp: 44-52 - in Persian
- **Sabzkouhi, A.M.**, Kashefipour, M., and Bina, M., (2011), “*Investigation of Effective Parameters on Stepped and Straight Drops Energy Dissipation Using Physical Modeling*”, International Journal of Food, Agriculture and Environment, WFL. Publisher, Vol.9 (3&4), pp: 748-753
- **Sabzkouhi, A.M.**, Kashefipour, M., and Bina, M., (2011), “*Experimental Comparison of Energy Dissipation on Drop Structures*”, Iranian Journal of Science and Technology of Agriculture and Natural Resources, Water and Soil Science, Isfahan University of Technology, Iran, Vol. 15(56), pp: 209-221 -in Persian
- Yarahmadi, F., Landi, A., Asudar, M.A. and **Sabzkouhi, A.M.**, (2013), “*Effects of Tillage Methods and Irrigation on Greenhouse Gasses Emission under Wheat Cultivation in the North of Khuzestan*”, Iranian Journal of Agricultural Engineering, Vol. 35(2), pp: 71-82 -in Persian

RESEARCH PROJECTS

- *Fuzzy Uncertainty Analysis of Longitudinal Dispersion Coefficient in Rivers*, 2020, Zahiri, J. and Moradi Sabzkouhi, A., ASNRUKH, Internally Funded by ASNRUKH (in Persian)
- *Technical-Economic Feasibility Study on Resolving Zanjan's Water Shortage from Shahriar Dam vs. Moshampa Dam; Challenges and Solutions*, 2019, Haghghi, A., M.V. Samani, H., Moradi Sabzkouhi, A., Adibian, M. and Ayati, A., SCU, Funded by IRAN Water Resources Management Company; 95/ع/س/168; (in Persian)
- *Interruption causes in water distribution networks and introducing control methods to improve operational efficiency*, 2014, Haghghi, A. and Moradi Sabzkouhi, A., SCU, Funded by Rural Water and Wastewater Company of Khuzestan; Contract No: 3342-ش/ق; (in Persian)
- *Effects of Temperature on Chlorine Kinetic Decay Factors in Rural Water Distribution Networks in Khuzestan Province*, 2013, Moradi Sabzkouhi, A. and Eskandari-Macvand, M.T., ASNRUKH, Funded by Rural Water and Wastewater Company of Khuzestan; National Code: 1390/142/م ت م ان ی; Contract No: 3020/212D-900;1 (in Persian)
- *Investigation of Demand Pattern and Determination Hourly and Daily Peak Factors of Rural Water Distribution Networks in Khuzestan Province*, 2011, Moradi Sabzkouhi, A., Kashefipour, M. and Salimi Chamkakaie, A., ASNRUKH, Funded by Rural Water and Wastewater Company of Khuzestan; National Code: 1387/142315 م ت م ان ی; Contract No: 2162/212R-87002; (in Persian)

TEACHING COURSES

- Fluid Mechanics
- General Hydraulics
- Pump and Pumping Stations
- Statics
- Design of Water Supply Pipe Networks
- Water Resources Engineering

HONORS and AWARDS

- 2012: Fully funded scholarship awarded by the Iranian Ministry of Science, Research, and Technology for Ph.D. in Civil Eng., Hydraulics
- 2003: Rank 6th of 355 Candidates in the National Entrance Examination Leading to Admission in M.Sc. in Agricultural Engineering - Irrigation Structures, National Organization of Educational Testing, Ministry of Science, Research and Technology, Iran Government.
- 2003: Rank 1st among 29 Undergraduate Students of Agricultural Engineering-Irrigation at Shahid Chamran University, Ahvaz, Iran

COMPUTER PROGRAMMING AND SOFTWARE SKILLS

- MATLAB and Python: Programming
- Water GEMS: Hydraulic and Water Quality Analysis of Pressurized Pipe Networks.
- EPANET: Hydraulic and Water Quality Analysis of Pressurized Pipe Networks.
- HEC-RAS: Simulation of Open Channel Hydraulics
- HAMMER: Transient Flow Simulation in Pipelines

EMPLOYMENT RECORDS

- 2018 up to now: Senior Lecturer, Department of Water Eng., Agricultural Sciences and Natural Resources University of Khuzestan, Mollasani, Khuzestan Prov., Iran
- 2017 up to now: Supervisor of Hydraulics, PARSABAZMA Consulting Engineers and Research Company, Part Time, Ahvaz, Iran
- 2016-2017: R&D Officer, ASEMAN BORJ KAROON Consulting Engineers, Ahvaz, Iran
- 2007 – 2013: Lecturer, Department of Water Eng., Agricultural Sciences and Natural Resources University of Khuzestan, Mollasani, Khuzestan Prov., Iran
- 2003 - 2007: Design Engineer, Urban Water System Projects, POURAB Consultant Engineers, Ahvaz, Iran

REFEREES

- Ali Haghighi, Professor, Dept. of Civil Engineering, Shahid Chamran Uni., Ahvaz, Iran, a.haghighi@scu.ac.ir ; ali77h@gmail.com
- Mahmood Kashefipour, Professor, Faculty of Water Sciences Engineering, Shahid Chamran Uni., Ahvaz, Iran, kashefipour@scu.ac.ir ; Kashefipour@Excite.Com
- Mahmood Shafai Bajestan, Professor, Faculty of Water Sciences Engineering, Shahid Chamran Uni., Ahvaz, Iran, m-shafaeibejestan@scu.ac.ir, m_shafai@yahoo.com
- Hossein Mohammad Vali Samani, Professor, Dept. of Civil Engineering, Shahid Chamran Uni., Ahvaz, Iran, hossein.samani@gmail.com