



Curriculum Vitae

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Associate Professor, School of Civil Engineering,
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1. PERSONAL INFORMATION

Date of Birth: 14 June 1962,
Place of Birth: Semnan, Iran
Nationality: Iranian

2. CONTACT INFORMATION

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3. EDUCATION

- 1) **Ph.D.:** Hydraulics, 1994, University of Queensland, Australia.
 - Title of Ph.D. Thesis: “ Computation of Turbulent Flows in Irregular Open Channels”
- 2) **Master of Science:** Hydraulic Structures, 1989, University of Tehran, Tehran, Iran.
 - Title of Master of Science Thesis: “ 2D Numerical Model of Shallow Water Flows in Rivers and Estuaries”
- 3) **Bachelor of Science,** Civil Engineering, 1987, University of Tehran, Tehran, Iran.

4. HONORS

- ◆ First Rank, Hydraulic Structures M.Sc. Student, Faculty of Engineering, Tehran University.
- ◆ Second Rank, Civil Engineering M.Sc. Students, Faculty of Engineering, Tehran University.

5. PROFESSIONAL EXPERIENCES

- ◆ Fulltime faculty member, School of Civil Engineering, University of Tehran, Tehran, Iran, June 1995-present.
- ◆ Dean, Regional Institute for Water Education (RIWE), University of Tehran, Tehran, Iran, Sept.2016 – present.
- ◆ Head, University of Tehran Water Institute, 2003-2016.
- ◆ Member of Graduate Studies Committee, School of Civil Engineering, University College of Engineering, University of Tehran, 2006-2011.
- ◆ Member of Graduate Studies Board, University College of Engineering, University of Tehran, , 2006-2008.
- ◆ Member of Board, Iranian Hydraulic Association, 2005-2009.
- ◆ Foundation Committee of University of Tehran Water Institute, University of Tehran, 2002-2003.
- ◆ Head of Graduate Office, University College of Engineering, University of Tehran, 1999-2002
- ◆ Chairman, Iranian 3rd Hydraulic Conference, 2001
- ◆ Member of Board, Iranian Hydraulic Association, 1998-2000.
- ◆ Director of Water Engineering Program, School of Civil Engineering, University College of Engineering, University of Tehran, 1996-2001.
- ◆ Director of Hydraulic Structure Program, School of Civil Engineering, University College of Engineering, 1995-1999.
- ◆ Research Deputy, School of Civil Engineering, University College of Engineering, 1995-1998.
- ◆ Project Manager/ Main investigator of the following projects:
 - Gotvand Dam Reservoir Salinity Remedy, Management and Planning Organization, 2016
 - Qumrood-River Flood Warning Project ,Qom Regional Water Authority, 2013
 - Kaboudwal Dam Break Analysis and Emergency Action Plan, Golestan Regional Water Authority, 2013
 - Mahabad Dam Break Analysis and Emergency Action Plan, West Azarbayejan Regional Water Authority, 2011
 - Yamchi Dam Break Analysis and Emergency Action Plan, Ardabil Regional Water Authority, 2009
 - Cascade Dam Break Analysis of three dams on Gorgan River, Golestan Regional Water Authority, 2007
 - Emergency Action Plan Preparation for Boustan, Golestan and Voshmgir Dams, Golestan Regional Water Authority, 2007
 - Evaluation of Iranian River Management System Project, National Water Resources Management Company, 2005
 - Sarcheshmeh Copper Complex Integrated Water System, Iranian National Copper Company 2004
 - Preparation of National Code for Dam Reservoirs Quality Monitoring, National Water Resources Management Company, 2004
 - Preparation of National Code for Dam Reservoir Quality Studies, National Water Resources Management Company, 2003
 - Kor River Flood Warning System, National Water Resources Management Company, 2003
 - Application of Expert Systems for Sedimentation in Dam Reservoirs, National Water Resources Management Company, 2003

- Development of a Two Dimensional Dam Break Program, National Water Resources Management Company, 2000
- Simulation of Masjed-e-Soliman HEPP Draft Tube, Ministry of Energy Research Deputy, 1998
- Integrated Hydraulic and Hydrologic Numerical Model for Flood Spreading Projects, Ministry of Jihad-e-Agriculture, 1996
- ◆ Industrial Cooperation:
 - Member of Managing Board, Middle East Water & Environment Company, 2004-2009
 - Member of Managing Board, Water Research Company, Ministry of Energy , 2002-2004
 - Member of River Engineering Committee, National Water Resources Management Company, 1998
 - Member of Managing Board, Jahan Kowsar Company, 1996-1998
 - Advisor, Mahab Ghods Company, 1996
 - Advisor, Sazeh Pardazi Iran Company, 1995
 - Head of River Engineering Division, Water Research Center, Ministry of Jihad-e-Agriculture, 1987-1989

6. RESEARCH INTERESTS

- ◆ Flood management
- ◆ Reservoir management
- ◆ Hydraulic structures
- ◆ Computational hydraulics
- ◆ Dam break modeling
- ◆ Shock capturing techniques
- ◆ Multi-phase flow simulation

7. PUBLICATIONS

7.1. Journal Publications

- ◆ Behrangi, F., Banihashemi M. A., Montazeri Namin M., Bohluly A. (2017). “FGA-MMF method for the simulation of two-phase flows”, Engineering Computations. DOI: 10.1108/EC-03-2017-0076.
- ◆ Behrangi, F., Banihashemi M.A., Montazeri Namin M., Bohluly A. (2017). “A new approach to solve mixture Multi-Phase Flow model using Time Splitting Projection Method”, Progress in Computational Fluid Mechanics. DOI:10.1504/PCFD.2017.10009357.
- ◆ Mahmoudianshoushtari, M., Malekmohammadi, B., Banihashemi, M.A. (2017). “Dam Safety Risk Assessment (Case Study: Flood Risk for Golestan Dam)”, Journal of Civil Engineering and Environment, Amirkabir University, 48, 4, 395-405.
- ◆ Behrangi, F., Banihashemi, M.A., Mahani, Sh., Rahmanian, M.R. (2014), “Sediment settling in the Latian Dam in Iran”, International Journal OF Sediment Research, 29, 2, 208-217.
- ◆ Behrangi, F., Banihashemi, M.A., Amiri, L., Saghir, A.R. (2014), “The Advantages of Using the Mixture Multiphase Model for Studying Air- Water Flow over Spillways”, International Journal of Multidisciplinary Research, 2, 10, 107-111.

- ◆ Sanei, M., Hadidi, H, Banihashemi, M.A. (2013), "Determination of critical tailwater depth of local scour in the downstream of overflow jet", *Journal of Watershed Management and Engineering*, 5, 4, 282-288
- ◆ Rahmanian, M.R. and Banihashemi, M.A., (2012) "Characterization of sedimentation pattern in reservoirs", *Canadian Journal of Civil Engineering*, 39, 8, 951-956.
- ◆ Zaki Alamdari, N., Banihashemi, M.A., Mirghasemi, (2012) , "A Numerical Modeling of Piping Phenomenon in Earth Dams ", *World Academy of Science, Engineering and Technology*, 70, 45-48
- ◆ Srveram, H., Shamsaei, A. Banihashemi, M.A. (2012), "Two-dimensional simulation of flow pattern around a groyne using semi-implicit semi-Lagrangian method", *International Journal of Physical Sciences*, 7, 20, 2775-2783.
- ◆ Rahmanian, M.R. and Banihashemi, M.A. (2012), "Introduction of a new empirical reservoir shape function to define sediment distribution pattern in dam reservoirs", *Iranian Journal of Science and Technology* ,36, C1, 76-92.
- ◆ Sarveram, H., Shamsai, A., Banihashemi, M.A. (2011), "One-dimensional dam-break flow modeling for variable width channels using an implicit semi-Lagrangian method", *International Journal of Food Agriculture Environment-JFAE*, 10, 1, 835-838.
- ◆ Rahmanian, M.A. and Banihashemi, M.A. (2011), "Sediment Distribution Pattern in some Iranian Dams based on a New Empirical Reservoir Shape function", *Lake and Reservoir Management*, 27, 3, 245-255.
- ◆ Asadiani Yekta, A.H. and Banihashemi, M.A. (2010), "A Godunov-Type Fractional Semi-Implicit Method based on Staggered Grid for Dam-Break Modeling", *International Journal for Numerical Methods in Fluids*, Vol 12, 10, 1291-1309.
- ◆ Baharestani, I. and Banihashemi, M.A. (2010), "Finite volume modeling of dam break water and sediment flow" , *Journal of Faculty of Engineering*, 44, 4, 1-10.
- ◆ Banihashemi, M.A. and Safiyari, O.R. (2009), "Laboratory investigation of reservoir delta progression" , 43, 2, 383-394.
- ◆ Ashraf Waghefi, S. S., Zahraie, B., Malekmohammadi, B., Banihashemi, M.A., (2009), "Optimization of Sediment flashing using a reservoir operation model: Case Study-Sefidroud Dam" , *Watershed Management Science and Technology*, 3, 6, 39-48.
- ◆ Mamizadeh, J., Banihashemi, M.A., Ayyoubzadeh, S.A., Salehi Neyshabouri, S.A.A., Rashidi, J. (2009), "Experiments on the effect of reservoir water level and the hydraulic and sediment characteristics of the river channel on the progression rate of reservoir delta", 15,5.
- ◆ Zia, A and Banihashemi, M.A. "Simple Efficient Algorithm SEA for shallow flows with shock wave on dry and irregular beds", *International Journal for Numerical Methods in Fluids*, 56, 11, 2021-2043.
- ◆ Abdollahzadeh, K. and Banihashemi, M.A. "Numerical 3D simulation of turbulent flow through the draft tube of Masjed-e Soleiman HEPP", *IUST International Journal of Engineering*, 15, 3, 7-88.
- ◆ Abdollahzadeh, K. and Banihashemi, M.A. (2003), "A Model Approach", *International Water Power and Dam Construction*, 2003, 03, 20-21.
- ◆ Kouchakzadeh, M. Banihashemi, M.A., Homaei, M., Oveysi, A, (2003), "Energy loss in supercritical sudden expansions", *Journal of agricultural science and technology*, 12, 3, 55-65.
- ◆ Kouchakzadeh, M. and Banihashemi, M.A. "Design of flood spreading projects using an integrated surface-subsurface water model", 4, 49.

- ◆ Samani, H. M. V. and Banihashemi, M.A., (1994), "Numerical modelling of 2D unsteady shallow water flows using non-staggered grids ",Journal of Faculty of Engineering,54,97-112.

8. MEMBERSHIP IN PROFESSIONAL SOCIETIES

- ◆ Member of Iranian Hydraulic Association
- ◆ Member of National Committee on Large Dams
- ◆ Member of Iranian Rainwater Catchment System Association

9. TEACHING RECORDS

- ◆ Fluid Mechanics
- ◆ Open Channel Hydraulics
- ◆ Hydraulic Structures
- ◆ Hydraulic Design of Hydraulic Structures
- ◆ Advanced Hydraulics
- ◆ Computational Hydraulics I
- ◆ Computational Hydraulics II
- ◆ Advanced Topics in Computational Hydraulics