

Curriculum Vitae

Seyed Saeid Ashraf Vaghefi

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1- Professional Education and Degree

Academic degree: **PhD, MSc, BSc**

- 2009 to 2014: **PhD** in Water Resources Planning & Management, Department of Civil and Environment Engineering, Amir Kabir University of Technology, Tehran, Iran
- 2006 to 2008: **MSc**, Technical Faculty, Department of Civil Engineering (Hydraulic Structures Major), University of Tehran, Tehran, Iran
- 2002 to 2006: **BSc**, Department of Civil Engineering, Iran University of Science & Technology, Tehran, Iran
- 2010 to 2011: Master of Business administration (**M.B.A**), Technical Faculty, University of Tehran, Tehran, Iran

2- Work Experience

- June 2015- present, Research Assistant at Swiss Federal Institute of Aquatic Science and Technology (EAWAG), P.O. Box 611, 8600 Dubendorf, Switzerland.
- September 2014-May 2015, Iran Water and Power Resources Development Co, Tehran, Iran.
- June 2012- December 2013, Research Assistant at Swiss Federal Institute of Aquatic Science and Technology (EAWAG), P.O. Box 611, 8600 Dubendorf, Switzerland.
- 2006 to 2008, Research Assistant at Water Institute of university of Tehran, Tehran, Iran.

- 2007 to 2008, Head of education department, Iran Doostan Co.
 - 2006 to 2008, Teacher of mathematics for BSc students, Parseh Educational Institute, Tehran
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3- Research Interests Areas

- Climate change impact analysis on extreme hydrological events.
 - Drought analysis
 - Programming and developing software (C#)
 - Climate change impact analysis on water resources' components
 - Physically based, distributed watershed modeling
 - Mesoscale assessment of water resource availability, quality, use and management
 - Land use change impact analysis
 - Agricultural crop production modeling and management
 - Uncertainty analysis in model predictions
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4- Publications

- **Peer-Reviewed International Journal Articles**

Published:

E. Majid, S.J. Mousavi, **S. Ashraf Vaghefi**, A. Ghaheiri. (2016) "Analysis of Recharge Conceptualization in Inverse Groundwater Modeling". Hydrological Sciences Journal, accepted: December 2015.

K. C. Abbaspour, E. Rouholahnejad, **S. Ashraf Vaghefi**, R. Srinivasan, H. Yang, and B. Klöve, (2015) "Hydrology and water quality model of the European Continent at subbasin scale: Calibration of a high-resolution large-scale SWAT model". Journal of Hydrology, Volume 524, pages 733-752.

Ashraf Vaghefi S, Mousavi S.J., Abbaspour K. C., Srinivasan R., and Arnold J. R. (2015) "Integration of Hydrologic and Water Allocation Models in Basin-Scale Water Resources Management Considering Crop Pattern and Climate Change: Karkheh River Basin in Iran". Regional Environmental Change, Volume 15, Issue 3, pages 475-484. DOI: 10.1007/s10113-013-0573-9

Ashraf Vaghefi S, Mousavi S.J., Abbaspour K. C., Srinivasan R., and Yang H. (2014) “Analyses of the impact of climate change on water resources components, drought and wheat yield in the semi-arid Karkheh River Basin in Iran”. *Hydrological Process*, Volume 28, Issue 4, pages 2018–2032. DOI: 10.1002/hyp.9747.

Faramarzi M., Abbaspour K.C., **A. Vaghefi S.**, Farzaneh M., Zehnder A.J.B. Srinivasan R., and Yang, H. (2013) “Modeling impacts of climate change on freshwater availability in Africa”. *Journal of Hydrology*, Volume 480, pages 85-101.

• **Peer-Reviewed Iranian Journal Articles**

Saeed A. Vaghefi, B. Zahraie, Bahram M. Mohammadi, Mohammad A. Banihashemi. (2009) “Optimized Building Sediment Dams Out in Flushing Operations by Model Exploitation from Reservoir: Sefid rood Dam Case Study”, *Iranian Journal of Watershed Sciences and Engineering*, Volume 3, Issue 6, pages 39-49.

Saeed R. Sabbagh Yazdi, Reza D. Nayeri, **Saeed A. Vaghefi**. (2011) “Two-Dimensional Modeling of Flow and Water-Cleaning Clay Bed around Circle Foundations with Application of Limited Volumes Unstructured Overlapping”, *Amirkabir Journal of Civil Engineering*, Volume 42, Issue 3, pages 65-75.

S. Ashraf Vaghefi., S. J. Mousavi. (2014). “Multi objective reservoir operation considering downstream demands and sediment flushing using imperialist competitive algorithm”, *Iranian Hydropower Journal*. Volume 1, Issue 2, pages 14-24.

• **Proceedings of Refereed Conferences**

S. Ashraf Vaghefi., S. J. Mousavi., Karim C. Abbaspour. (2014) “Modeling the impact of climate change on water resources components in Karkheh river basin”, 5th national conference on water resources management. Shahid Abbaspour collage of enginneering Shahid Behrshti University, Tehran, Iran

S. Ashraf Vaghefi., S. J. Mousavi. (2012) “Evaluation of flushing sediment from reservoir using decision tree technique, case study: sefid-Rud, Iran”, *International symposium on modern technologies and long term behavior of dams*. China

S. Ashraf Vaghefi., S. J. Mousavi, Karim C. Abbaspour., M. Ehtiat. (2012) “Reservoir operation optimization using imperialist competitive algorithm to balance sediment removal and water supply objectives”, *The first international conference on dams & hydropower.*, Tehran, Iran.

Saeed A. Vaghefi, Mohammad A. Banihashemi, Mohammad R. Rahmanian; "Effect of Sediment Bleaching Operations in Restoring Dams Reservoirs (Sefidrood Dam Case

Study)", The Second National Conference of Dam and Power Plant Electricity, May 2008.

Saeed A. Vaghefi, Mohammad A. Banihashemi, B. Zahrai, F. Behrangi; "Studying Effective Parameters on Flushing Operations in Dam Reservoir and their Effect in Success of Operations by Using Six Parameters SBR, LTRC, DDR, SBRd, FWR, TWR (Sefidrood Dam Case Study)", 7th Conference of Hydraulic Iran, November 2008.

- **Books/Book chapters**

"Mathematics for Management, Accounting, and Economics Students", Saeed A. Vaghefi, A. Saeedi, M. Dowlatshahi (member of scientific group in University of Tehran), Gaj Publication, 2008.

- **Theses**

Saeed A. Vaghefi, "Basin-Scale Water Resources Management by Integration of Hydrologic and Water Allocation Models Considering the Impacts of Climate Change and Cropping Pattern", Department of Civil and Environment Engineering, Amir Kabir University of Technology, Tehran, Iran, 2014. (**PhD**).

Saeed A. Vaghefi, "The study of effective Parameters on Flashings operation from Dam resources and their influence on the success of the operation", Faculty of Engineering, university of Tehran., 2008. (**MSc**).

5- Invited Lectures, Short Courses and Symposia Presentations

- SWAT-CUP workshop, Lecture for PSO method in SWATCUP, Switzerland, 2015
 - Sediment Management in Reservoirs, Flushing of sediment, University of Tehran, 2009
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6- Honors & Awards

- Scholarship for four months visits from EAWAG: Swiss Federal Institute of Aquatic Science and Technology, Switzerland. (Supervisor: Dr. Karim Abbaspour)
- Scholarship from EAWAG for three months visits from Texas A&M Agrilife research: Texas A&M AgriLife research, Agriculture and Life Sciences Building 600 John Kimbrough Blvd. Suite 510 College Station, TX 77843-2142

- Awards of Scientific-Research Organization of Civil Engineering Students of Iran, 2004
- Member of Concrete Research Group in University of Science and Technology, under supervision of Dr. Hormoz Family, Dr. Ahmad Niknam, Dr. Reza Abbasnia, Dr. Parviz Ghodoosi, 2004
- Achieve fifth rank in national Competitions of Concrete day, 16 October 2004
- Scientific Secretary and member of Executive Committee of 12th National Conference of Civil Engineering Students, November 2005
- Member of Scientific and Executive Committee of the Second Congress of Civil Engineering, 2005

7- Computer Skills

General Software: Ms Office, Adobe Photoshop

Technical Software: ArcSWAT- MODSIM- ArcGIS, HEC-HMS-WEAP- 3.0- RESCON

Industrial software: AutoCAD, AutoCad-Civil3D, ETABS, SAP, SAFE

Mathematical Package: Matlab, SPSS

Programming language: C#, Fortran, Matlab

8- Referees

Dr. Karim Abbaspour
System Analysis, Integrated Assessment and Modelling
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9- References

Available upon request