**Amir Sedaghatdoost**

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[Vadose Zone Research Group](https://vadosezone.tamu.edu/amir-sedaghatdoost/)

[Researchgate](https://www.researchgate.net/profile/Amir_Sedaghatdoost)

[Google Scholar](https://scholar.google.com/citations?user=vapbU4wAAAAJ&hl=en)

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| **Education** |  |  |
| 2017-now | PhD student, | |
|  | Texas A&M University, USA | |
|  | College of Engineering | |
|  | Department of Biological and Agricultural Engineering  GPA: 3.70  Dissertation Title: **Tracking subsurface water, carbon, and nitrogen by linking local scale soil hydrologic and biogeochemical features** | |
| 2012-2014 | MSc, Agricultural Engineering- Irrigation and Drainage | |
|  | University of Tehran, Iran | |
|  | College of Agriculture and Natural Resources, | |
|  | Irrigation and Reclamation Engineering Department  GPA: 3.40 | |
|  | Thesis Title: **Estimating soil hydraulic and solute transport parameters in subsurface drainage** | |
|  | **systems using inverse modeling** | |
| 2008-2012 | BSc, Agricultural Engineering- Water | |
|  | University of Guilan, Iran | |
|  | College of Agriculture, Water Engineering Dept. | |
|  | GPA: 3.20 | |

**Research Interests**

* Vadose zone hydrology
* Soil biogeochemistry
* Soil physics
* Agricultural water management



**Papers Published in Peer-reviewed Journals**

**Sedaghatdoost, A**., Ebrahimian, H., and Liaghat, A. (2019). An Inverse Modeling Approach to CalibrateParameters for a Drainage Model with Two Optimization Algorithms on Homogeneous/Heterogeneous Soil. *Water* *Resources Management*, 1-13.

**Sedaghatdoost, A**., Ebrahimian, H., & Liaghat, A. (2018). Estimating soil hydraulic and solute transport parametersin subsurface drainage systems using an inverse modelling approach. *Irrigation and Drainage*, *67*, 82-90.

**Sedaghatdoost, A.,** and Ebrahimian, H. (2018). Discussion of “Evaluation of DRAINMOD 6.1 for HydrologicalSimulations of Peat Extraction Areas in Northern Finland” by Shahram Mohammadighavam and Bjørn Kløve. *Journal of Irrigation and Drainage Engineering*, *144*(4), 07018001.

Shayan, H. K., Bayrami, M., and **Sedaghatdoost, A**. (2017). Discussion of “Deducing a Drain Spacing Formula by Applying Dimensional Analysis and Self-Similarity Theory” by Vito Ferro. *Journal of Irrigation and Drainage Engineering*, *143*(6), 07017006.

Ghorbanian, M., **Sedaghatdoost, A**., and Liaghat, A. (2016). Discussion of “Effect of Fertigation on Soil Salinization and Aggregate Stability” by JM Moreira Barradas, A. Abdelfattah, S. Matula, and F. Dolezal. *Journal* *of Irrigation and Drainage Engineering*, 07015035.

**Sedaghatdoost, A**., and Ebrahimian, H. (2015). Calibration of infiltration, roughness and longitudinal dispersivitycoefficients in furrow fertigation using inverse modelling with a genetic algorithm. *Biosystems Engineering*, *136*, 129-139.

**Sedaghatdoost, A**., and Ebrahimian, H. (2015). Discussion of “Unsaturated Flow Functions for Filter Media Usedin Low-Impact Development—Stormwater Management Systems” by Iulia A. Barbu and Thomas P. Ballestero. *Journal of Irrigation and Drainage Engineering*, 07015019.

**Sedaghatdoost, A**., Safaei, S., and Ebrahimian, H. (2015). ”Discussion of “DRAINMOD-DSSAT Simulation of theHydrology, Nitrogen Dynamics, and Plant Growth of a Drained Corn Field in Indiana” by Lamyaa M. Negm, Mohamed A. Youssef, Richard W. Skaggs, George M. Chescheir, and Eileen J. Kladivko.” *J. Irrig. Drain Eng.*, 141(9), 07015008.



**Conferences Proceedings**

**Sedaghatdoost**, A., Mohanty, B., Huang, Y. (2017). Investigating the Effect of Soil Physical and Chemical Properties on Elemental distribution and Redox Biogeochemistry in Brazos River Basin. American Geophysical Union Meeting, 10-14 December, Washington D.C., USA.

**Sedaghatdoost**, A., Mohanty, B., Huang, Y. (2018). Tracking Water, C, N, and P by Linking Local Scale SoilHydrologic and Biogeochemical Features to Watershed Scale. American Geophysical Union Meeting, 11-15 December, New Orleans, USA.

**Leadership Experiences and Extracurricular Ac****tivities**

(2018-now) President of Biological and Agricultural Engineering Graduate Students Association,

(2018-now) Treasurer of Texas A&M Water Network- A chapter of the Texas section of the American Water Works Association,

(2019) Moderator of 2019 Texas Junior Science and Humanities Symposium

(2019) Moderator of 2019 Texas A&M Science Bowl

(2018-now) Member of Environmental Issue Committee of Texas A&M University,

(2017-now) Member of Graduate and Professional Student Council at Texas A&M University,

(2017-2018) Vice President of Biological and Agricultural Engineering Graduate Students Association,



**Awards and Honors**

(2019) Robert E Stewart Graduate Excellence Award.

(2018) Department of Biological and Agricultural Engineering Travel Award,

(2018) Rethinking Texas Water Policy Conference Scholarship Award,

(2017) Irrigation E3 Education and Travel Award,

(2017) Department of Biological and Agricultural Engineering Travel Award,

(2017) Biological and Agricultural Engineering Department Graduate Student Scholarship.