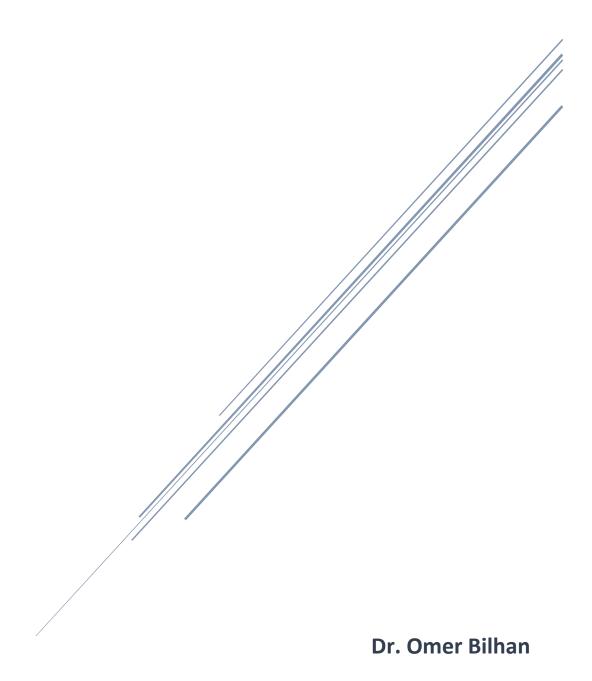
# SUMMARIZED CURRICULUM VITAE



#### Dr. Omer Bilhan

# **Assistant Professor and Chair**

Name: Omer Surname: BILHAN

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Wayne State University College of Engineering 5050 Anthony Wayne Dr. Detroit, MI

48202, USA

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URL: <a href="https://huw.wayne.edu/about-team">https://huw.wayne.edu/about-team</a>

http://biz.nevsehir.edu.tr/omerbilhan/

https://www.researchgate.net/profile/Omer Bilhan

https://scholar.google.com/citations?user=AiYQwDYAAAAJ&hl=en

#### **EDUCATION**

Country	University	Faculty	Department	Degree	Year
USA	Wayne State University	College of Engineering	Civil and Env. Engineering	Post Doc. Researche	
Turkey	Firat University	Faculty of Engineering	Civil Engineering	Ph.D.	2011
Turkey	Firat University	Faculty of Engineering	Civil Engineering	M.S.	2005
Turkey	Firat University	Faculty of Engineering	Civil Engineering	B.S.	2002

# ACADEMIC and ADMINISTRATIVE EXPERIENCE

Institution	Country	City	Department	Tasks	Year
Wayne State University-College of Engineering	USA	Detroit	Dept. of Civil and Environmental Engineering	Post-Doctoral Researcher	2015- 2016
Wayne State University-College of Engineering	USA	Detroit	UWERG (Urban Watershed Environmental Research Group)	Team Member	2013- present
Nevsehir HBV University	Turkey	Nevsehir	Department of Civil Engineering	Chair, Assistant Professor	2012- present
Wayne State University-College of Engineering	USA	Detroit	Dept. of Civil and Environmental Engineering	Visiting Scholar	March 2013- June 2013
Firat University	Turkey	Elazig	Department of Civil Engineering	Research Assistant	2005-2012

PhD Thesis: Investigation of Flow in Labyrinth Side Weirs Using Different Artificial Intelligence

Calculation Methods

M.S Thesis: The Experimental Analysis of Hydraulic Characteristics of Labyrinth Weirs

# **CURRENT POSITION**

#### Assistant Professor, Chair

Nevsehir HBV University, Faculty of Engineering and Architecture, Civil Engineering Department, November, 2012 – Present.

# Urban Watershed Environmental Research Group-UWERG

I joined the Urban Watershed Environmental Research Group (UWERG) as a Visiting Professor in Wayne State University in 2013. URL: https://huw.wayne.edu/

# Post-Doctoral, Researcher

Wayne State University, Department of Civil and Environmental Engineering, Detroit, MI, USA, February 2015 – 2016.

# PROFESSIONAL EXPERTISE

- Hydraulic modeling
- Dam Safety
- Relatively new mathematical tools applied to hydraulic engineering
- Water resources engineering
- Open channel hydraulics
- ♣ Hydraulic characteristics of spillways
- Labyrinth weirs
- Sediment Transport
- ♣ MATLAB, SWAT, GIS, HEC-RAS, WINRIVER
- ANN, Fuzzy Logic, ELM (Extreme Learning Machines), SVR
- Data Analysis.

#### **HONORS AND AWARDS**

- \* "Regional Seminar on Dam and Earthquake". The Best Master's thesis award in 2005. Eskisehir/Turkey
- The Scientific and Technological Research Council of Turkey (TUBITAK) Scientific Publication Awards, 2010-2011-2012-2018.

#### **COURSES TAUGHT**

- ♣ Fluid Mechanics
- Hydraulic
- Hydrology
- ♣ Engineering Hydraulics (Open Channel Flow)
- Taught a special section on experimental methods of hydraulics in laboratory settings to Wayne State University College of Engineering students in USA.
- Sediment transport
- Irrigation and drainage

# Essays/Theses/Dissertations Directed

Mentor two Master student

- ♣ Fatih Ilalan (2017). Analysis of Flow Characteristics and Sediment Deposition of the Nevsehir City Kızılırmak River. Msc Thesis.
- ♣ Sami Yildirim (2017)- in courses stage of MSc Programme.

# **RECENT SYNERGIES**

- ♣ Developed a new international network with hydraulic members of the Urban Watershed Environmental Research Group at Wayne State University College of Engineering (2013) (UWERG-BILHAN is team member) <a href="https://uwerg.wayne.edu/">https://uwerg.wayne.edu/</a>
- ♣ Taught a special section on experimental methods of hydraulics in laboratory settings to Wayne State University College of Engineering students.
- Developed a geo-hydraulic research interface between the Civil, Environmental, and Geotechnical Engineering groups at Wayne State University, Detroit, MI USA. This interface bridges international sediment transport projects in Turkey, Brazil, and the USA.
- 4th Eurasian Conference on Civil and Environmental Engineering (ECOCEE) 2019 at DoubleTree by Hilton Hotel Avcılar Istanbul Turkey. Scientific Committee member. Develop the technical program for the conference by soliciting and selecting the papers to be included in the conference technical program and other sessions.

#### **SELECTED PUBLICATIONS**

1. Omer Bilhan, M. Emin Emiroglu, Ozgur Kisi "Application of two different neural network techniques to lateral outflow over rectangular side weirs located on a Straight channel". Journal of Advances in Engineering Software, doi:10.1016/j.advengsoft.2010.03.001, Volume 41, Issue 6, June 2010, Pages 831-837.

- 2. M. Emin Emiroglu, Ozgur Kisi, Omer Bilhan "Predicting discharge capacity of triangular labyrinth side weir located on a straight channel by using an adaptive neuro- fuzzy technique". Journal of Advances in Engineering Software doi:10.1016/j.advengsoft.2009.09.006, Pages: 154-160 Volume: 41, Issue: 2, February 2010.
- 3. M. Emin Emiroglu, Omer Bilhan and Ozgur Kisi "Neural networks for estimation of discharge capacity of triangular labyrinth side-weir located on a straight channel". Journal of Expert System with Applications. doi:10.1016/j.eswa.2010.07.058, 38(1), 867-874. 2011.
- 4. Omer Bilhan, Ozgur Kisi, and M. Emin Emiroglu "Use of Artificial Neural Networks for Prediction of Discharge Coefficient of Triangular Labyrinth Side Weir in Curved Channels". Journal of Advances in Engineering Software, doi: 10.1016/j.advengsoft.2011.02.006, Pages: 208-214, Volume: 42, Issue: 4, April 2011.
- 5. Ozgur Kisi, Omer Bilhan and M. Emin Emiroglu "ANFIS to estimate discharge capacity of rectangular side weir". Proceedings of the ICE Water Management, Volume: 165, Issue: WM1, Pages: 19, http://dx.doi.org./10.1680/wama.11.00095, 2012.
- 6. Ozgur Kisi, M. Emin Emiroglu, Omer Bilhan, Aytac Guven "Prediction of lateral outflow over triangular labyrinth side weirs under subcritical conditions using soft computing approaches". Journal of Expert System With Applications, doi: 10.1016/j.eswa.2011.09.035, Volume: 39, Issue: 3, Pages: 3454-3460, 2012.
- 7. Omer Bilhan, M. Emin Emiroglu, Ozgur Kisi "Application of Artificial Intelligence Methods for the Forecast of Discharge Capacity of Side Weirs. 9<sup>th</sup> International Congress on Advances in Civil Engineering, 27-30 September 2010, Karadeniz Technical University, Trabzon, Turkey.
- 8. <u>Omer Bilhan, M. Emin Emiroglu</u> "Hydraulic Characteristics of Sharp Crested Labyrinth Weirs Having Different Crest Shapes" 7th International Congress on Advances in Civil Engineering, 2006, Istanbul, Turkey.
- **9.** Omer Bilhan 'Applied Methods to increase the discharge capacity of the spillways' V. World Water Forum. Water and Energy Conference. Artvin, Turkey, 2008.
- **10.** Omer Bilhan, M. Emin Emiroglu "Experimental studies on determination of discharge capacity of circular labyrinth weirs located on a straight channel" International Journal of Electronics, Mechanical and Mechatronics Engineering (IJEMME) Vol:6, Number: 3. Pages:1227-1239, Doi: 10.17932/IAU.IJEMME.m.21460604.2016.6/3.1227-1239. 2016.
- 11. Omer Bilhan, M Emin Emiroglu, Carol J Miller 'Experimental Investigation of Discharge Capacity of Labyrinth Weirs with and without Nappe Breakers' http://dx.doi.org/10.4236/wjm.2016.67017. World Journal of Mechanics, Vol:6, Pages:207-221, 2016.
- **12.** <u>Carol J. Miller, Omer Bilhan, Anupam Kumar</u> "137Cs and 239,240Pu geochronology and history of trace metal pollution in Kizilirmak River of Turkey". **In preparation, 2017.**
- 13. Omer Bilhan, M. Emin Emiroglu "Discharge coefficient of sharp-crested trapezoidal labyrinth weirs". International Journal of Electronics, Mechanical and Mechatronics Engineering (IJEMME) Vol.6, Number: 4, Doi: 10.17932/IAU.IJEMME.21460604.2016.6/4.1305-1316. 2016.

- 14. Omer Bilhan, M. Emin Emiroglu, Carol J. Miller, M. Ulas "The evaluation of the effect of nappe breakers on the discharge capacity of trapezoidal labyrinth weirs by ELM and SVR approaches". https://doi.org/10.1016/j.flowmeasinst.2018.10.009. Flow Measurement and Instrumentation.2018. Vol.6, Pg. 71-82.
- **15.** Omer Bilhan, M. Cihan Aydin, M. Emin Emiroglu, Carol J. Miller 'Experimental and CFD Analysis of Circular Labyrinth Weirs' ASCE-Journal of Irrigation and Drainage Engineering. https://doi.org/10.1061/(ASCE)IR.1943-4774.0001301. Vol. 144, Issue 6 (June 2018).
- **16.** Alighalehbabakhani, F., Miller, C.J., Selegean, J.P. and **Bilhan, Omer** 'Impacts of land use change and dam construction on sediment delivery to the Laurentian Great Lakes.' Conference: IAGLR's 60th annual Conference on Great Lakes Research; From Cities to Farms: SHAPING GREAT LAKES ECOSYSTEMS; 2017, At COBO CENTER, Detroit, MI, USA. 2017.

# **PUBLICATION REVIEW ACTIVITY**

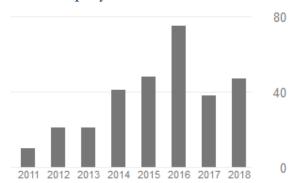
I conducted peer reviews for multiple SCI journals (minimum the 50 times I were invited to judge the work of my peers.) Also, I work as a departmental editor of the Nevsehir Journal of Science and Technology (ISSN No: 2148-4651 Online; ISSN No: 2148-466X).

- ♣ Journal of Hydrology
- American Society of Civil Engineers (ASCE) Journal of Irrigation and Drainage Engineering
- 👃 Journal of Proceedings of the ICE Water Management. ICE Publishing Ltd. UK.
- ↓ CLEAN-SOIL AIR WATER Journal. WILEY-V C H VERLAG GMBH, Germany
- ♣ KSCE Journal of Civil Engineering
- ♣ Journal of Engineering Applications of Computational Fluid Mechanics. Publisher Name: The Hong Kong Polytechnic University
- ♣ African Journal of Agricultural Research
- 🖶 Advances in Meteorology-Hindawi Publishing Corporation
- Measurement Journal of the International Measurement Confederation (IMEKO)
- Journal of Water Supply: Research and Technology AQUA-IWA Publishing
- ♣ Journal of Experimental & Theoretical Artificial Intelligence
- ISH Journal of Hydraulic Engineering
- International Journal of Modelling and Simulation, Taylor & Francis Online.
- Nevsehir Journal of Science and Technology

#### **CITATION INDICES**

Citation Indices October 2018	All	Since 2013
Citations	311	270
h-index	6	6
I10-hindex	6	6

#### Citations per year



# **PROJECTS**

- M. Emin Emiroglu, **Omer Bilhan**, "Investigation of discharge coefficient of labyrinth weirs and using nappe breakers on these weirs." Project No: 1610, Firat University, FUBAP, 2009, Turkey.
- Omer Bilhan "A Comparative study of Sediment Transport and Deposition in Rivers of the Laurentian Great Lakes Watershed in North America, the Sao Francisco River Basin in Brazil, and Turkey's Kizilirmak River Basin" Nevsehir HBV University, BAP, Project No: NEUBAP14F4, Nevsehir, Turkey and Wayne State University College of Engineering, CEE Department, 5050 Anthony Wayne Dr. Detroit, MI 48202, USA. 2017.