

Anzy Lee

Lyles School of Civil Engineering, Purdue University ♦ West Lafayette, IN 47906

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EDUCATION

Purdue University

Aug 2016 - present

Ph.D in Civil Engineering

Research interests: Riverbed Morphology, Hydrodynamics and Hyporheic Exchange Processes

Advisor: Prof. Antoine Aubeneau

Seoul National University, Republic of Korea

Mar 2014 - Feb 2016

MS in Civil and Environmental Engineering

Thesis: Determination of Near-global Optimal Initial Weights of Artificial Neural Network Using Harmony Search Algorithm: Application to Breakwater Armor Stones

Advisor: Prof. Kyung-Duck Suh

Handong Global University, Republic of Korea

Mar 2010 - Feb 2014

BS in Spatial Environment System Engineering

RESEARCH EXPERIENCE

Research Assistant

Aug 2016 - present

Prof. Antoine Aubeneau

Lyles School of Civil Engineering, Purdue University

- Numerical and experimental investigation of hyporheic exchanges in various topographies

Visiting Scholar

Feb 2019 - Apr 2019

Prof. Xiaofeng Liu

Civil and Environment Engineering, Penn State University

- Numerical and experimental investigation of hyporheic exchanges in various topographies

Visiting Scholar

Jan 2018 - Jan 2019

Prof. M. Bayani Cardenas

Jackson School of Geosciences, The University of Texas at Austin

- Numerical and experimental investigation of hyporheic exchanges in various topographies

Research Assistant

2014 - 2015

Prof. Kyung-Duck Suh

Coastal Engineering Laboratory, Seoul National University

- Developed a robust hybrid Artificial Neural Network (ANN) model integrated with the Harmony search algorithm to estimate the stability number of armor unit of rubble mound structure

JOURNAL ARTICLES

A. Lee, A. Aubeneau, M. B. Cardenas, 3D Numerical Modeling of Hyporheic Exchange Processes in Fractal Riverbed (in preparation)

A. Lee, J. W. Geem, K. D. Suh (2016) Determination of near-global optimal initial weights of artificial neural network using harmony search algorithm: Application to breakwater armor stones. Appl. Sci. 6(6), 164.

A. Lee, S. E. Kim, K. D. Suh (2016) An easy way to use artificial neural network model for calculating stability number of rock armor. Ocean Eng. 127, 349-356.

CONFERENCE PROCEEDINGS

A. Lee, M. B. Cardenas, A. Aubeneau (2018) Investigation of hyporheic exchange in channels with high Froude Number flows: the importance of free surface water elevation changes, AGU 2018 Fall Meeting, Dec 2018, Washington, D.C., United States

A. Lee, A. Aubeneau (2017) 3D Numerical Modeling of Hyporheic Exchange Processes in Fractal Riverbed' AGU 2017 Fall Meeting, Dec 2017, New Orleans, United States

TEACHING AND MENTORING

Lab Instructor and Grader

Fall 2014

Elementary Fluid Mechanics

Instructor. Prof. K. D. Suh, Seoul National University

- Prepared the experimental procedures, set up the experimental apparatus, introduced the experiment, responded to student questions during the experiment, and graded student reports

HONORS, AWARDS AND SERVICE EXPERIENCE

Climate Science Summer School, NASA JPL Center for Climate Sciences

2018

Delleur Award, Purdue University

2017, 2018

Summer Institute on Earth-Surface Dynamics, National Center for Earth-surface Dynamics

2017

Peer Reviewer, *The journal Engineering Optimization*

2015

LG Foundation Fellowships, LG Yonam Foundation

2014-2015

COMPUTER SKILLS

Operating Systems: Windows, Linux

Computer Languages: C/C++, Python, Visual Basic

Scientific Applications: MATLAB, LaTeX, OpenFOAM, FEniCS, ParaView, GIS, HEC-RAS, HEC-HMS

Technical Drawing: yEd, Adobe Illustrator, AutoCAD, Microsoft Visio