

# ANDREW DONGJIN KIM

## ASSOCIATE PROFESSOR

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PERIMETER COLLEGE, GEORGIA STATE UNIVERSITY

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## EDUCATION

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|                                 |                                      |       |      |
|---------------------------------|--------------------------------------|-------|------|
| Georgia Institute of Technology | Civile and Environmental Engineering | Ph.D. | 2011 |
| Kyungpook National University   | Mechanical Engineering               | M.S.  | 2002 |
| Keimyung University             | Mechanical Engineering*              | B.S.  | 2000 |

\*Formerly Automotive Engineering

## ACADEMIC APPOINTMENTS

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|                     |                                                                                               |
|---------------------|-----------------------------------------------------------------------------------------------|
| Apr.2022 – present  | Associate Professor, Perimeter College (PC) at Georgia State University (GSU)                 |
| Aug.2022 – present  | Research coordinator, PC Undergraduate Research Experience, PC-GSU                            |
| Jun.2022 – Jul.2022 | Limited-term instructor, Hanyang University                                                   |
| Jan.2022 – present  | Research coordinator, C.O.R.E.-PBI Formula, PC-GSU                                            |
| Jan.2016 – Apr.2022 | Assistant Professor, PC-GSU                                                                   |
| Jan.2016 – present  | Regents' Engineering Pathway Program Coordinator, PC-GSU                                      |
| Aug.2020 – Apr.2021 | Chair, Engineering Curriculum Committee, PC-GSU                                               |
| Aug.2018 – Jul.2019 | Chair, Engineering Curriculum Committee, PC-GSU                                               |
| Jan.2014 – Dec.2015 | Instructor, Athens Technical College                                                          |
| Jan.2013 – Dec.2013 | Adjunct Professor, Kennesaw State University (Formerly Southern Polytechnic State University) |
| Aug.2011 – Apr.2013 | Postdoctoral Fellow, Georgia Institute of Technology                                          |
| May 2007 – Aug.2011 | Graduate Research/Teaching Assistant, Georgia Institute of Technology                         |

## INDUSTRIAL APPOINTMENTS

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|                     |                                                                                         |
|---------------------|-----------------------------------------------------------------------------------------|
| Jan.2004 – Jun.2006 | Leading Research Engineer, Advanced Research Team, R&D Center, Korea Powertrain Co. Ltd |
| Jan.2002 – Jun.2004 | Research Engineer, Research Team, R&D Center, Korea Powertrain Co. Ltd                  |

## AWARDS AND HONORS

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|             |                                                                                                         |
|-------------|---------------------------------------------------------------------------------------------------------|
| Summer 2022 | Dean's Seed Grant, PC-GSU                                                                               |
| Spring 2021 | Received a Thank You Note through CETLOE's Thank-A-Teacher Program, PC-GSU                              |
| 2019        | Center for Excellence in Teaching and Learning (CETL) Quality Enhancement Plan (QEP) Fellowship, PC-GSU |
| 2019        | CETL Faculty Development Grant, PC-GSU                                                                  |
| 2019        | Scholarship of Teaching and Research (STAR), PC-GSU                                                     |

## TEACHING

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***Hanyang University in South Korea (International Summer School)***

|          |                 |                     |
|----------|-----------------|---------------------|
| GEN 1014 | General Physics | Jun.2022 – Jul.2022 |
|----------|-----------------|---------------------|

***Perimeter College, Georgia State University***

|           |                                      |                    |
|-----------|--------------------------------------|--------------------|
| ENGR 1211 | Engineering Graphics and Design 1/2  | Jan.2017 – present |
| ENGR 2605 | Statics                              | Jan.2016 – present |
| ENGR 2606 | Dynamics                             | Jan.2016 – present |
| ENGR 1603 | Introduction to Engineering          | Jan.2016 – present |
| ENGR 1671 | Computing Fundamentals for Engineers | Aug.2016 – present |

***Athens Technical College***

|           |                              |             |
|-----------|------------------------------|-------------|
| MEGT 2030 | Statics                      | 2013 – 2015 |
| MEGT 2080 | Strength of Materials        | 2013 – 2015 |
| CETC 1121 | Hydraulics & Fluid Mechanics | 2013 – 2015 |
| MEGT 2260 | Fluid Power                  | 2014 – 2015 |
| MEGT 2020 | Engineering Materials        | 2014 – 2015 |
| MEGT 2090 | Machine Design               | 2014 – 2015 |
| MEGT 1010 | Manufacturing Processes      | 2013 – 2015 |
| METR 1101 | Metrology                    | 2013 – 2015 |

***Southern Polytechnic State University (Current: Kennesaw State University)***

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|-----------|---------------------|------|
| ENGR 3343 | Fluid Mechanics     | 2013 |
| ENGR 3345 | Fluid Mechanics Lab | 2013 |

**EXTRACURRICULAR ADVISEMENT**

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***Research Projects/Conference/Journal***

|                     |                                                 |
|---------------------|-------------------------------------------------|
| Jul.2023 – Present  | Georgia Undergraduate Research Conference       |
| Jan.2023 – Present  | ACM-SE Conference                               |
| Jun.2021 – Present  | C.O.R.E. Undergraduate Research Experience      |
| Aug.2022 – Present  | PC Undergraduate Research Experience            |
| Jun.2021 – Jul.2021 | Chevron Summer Research Experience              |
| May 2021, May 2020  | PSLSAMP Summer Research Experience              |
| Sep 2020            | Herty Medalist Undergraduate Research Symposium |
| Nov.2017            | Ethical Decisions in Autonomous Vehicles        |
| Nov 2016            | ACM Mid-SE Conference                           |

***Regents' Engineering Transfer/Pathway Program Pursuing Georgia Institute of Technology******Advising Student Clubs***

|                     |                    |                              |
|---------------------|--------------------|------------------------------|
| Korean Culture Club | Nov.2021 – present | Dunwoody Korean Culture Club |
| Engineering Club    | Aug.2016 - present | Dunwoody Engineering Club    |

**INVOLVED RESEARCH PROJECTS**

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|                     |                                                                              |
|---------------------|------------------------------------------------------------------------------|
| Aug.2022 – present  | Perimeter College Undergraduate Research Experience program, research mentor |
| Jan.2022 – present  | PBI Formula Grant – C.O.R.E., research coordinator                           |
| Jun.2021 – Jul.2021 | Chevron Summer Research Experience                                           |
| May 2021            | Peach State LSAMP Summer Research Grant (NSF # 1619689)                      |
| May 2020            | Peach State LSAMP Summer Research Grant (NSF # 1619689)                      |
| 2011-2013           | Water Research Foundation: 4134                                              |
| 2007-2011           | US EPA: CR-834118                                                            |
| 2007-2011           | US Environmental Protection Agency or US EPA: CR-83327701                    |

**SERVICES**

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|                |                                                                                             |
|----------------|---------------------------------------------------------------------------------------------|
| 2022 – 2023    | Faculty Affairs Committee Member, PC-GSU                                                    |
| 2022 – present | Computer Science and Engineering Executive Committee At-Large Member, PC-GSU                |
| 2020 – present | Engineering course assessment coordinator, PC-GSU                                           |
| 2020           | Technical Paper Reviewer (ASEE Conference)                                                  |
| 2019           | Served as a technical presentation session judge at the Peach State LSAMP Annual Conference |
| 2019           | Technical Paper Session Moderator at ASEE Conference                                        |
| 2019           | Technical Paper Reviewer (Journal of Environmental Engineering)                             |
| 2017 – 2021    | Point of Contact of Engineering Course Assessment Report for SACS, PC-GSU                   |
| 2018           | Technical Paper Session Moderator at ACM SE Conference                                      |
| 2018           | Engineering Faculty Search Committee Member, PC-GSU                                         |
| 2017 – 2018    | Computer Science Faculty Search Committee Member, PC-GSU                                    |
| 2017           | Leader of Regents' Engineering Pathway Program's Website Design Task Force Team, PC-GSU     |
| 2017           | Proposer of Workload Adjustment Justification for an Engineering Class (ENGR 1671), PC-GSU  |
| 2017           | Technical Paper Reviewer (ACM SE Conference)                                                |
| 2016           | Notebook Judge for the Georgia BEST Award, PC-GSU                                           |
| 2016           | Oral Presentation Judge at ACM-Mid SE Conference                                            |
| 2016           | Technical Paper Reviewer (Journal of Environmental Engineering)                             |
| 2014           | Technical Paper Reviewer (Journal of Hydraulic Engineering)                                 |

## MEMBERSHIPS

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|                |                                                  |
|----------------|--------------------------------------------------|
| 2019 – present | ASEE (American Society of Engineering Education) |
| 2014-2015      | ASME (American Society of Mechanical Engineers)  |
| 2013           | ASCE (American Society of Civil Engineers)       |

## LICENSES AND CERTIFICATES

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|          |                                                                                                                      |
|----------|----------------------------------------------------------------------------------------------------------------------|
| Nov.2020 | FY 2021 Workforce Development for Teachers and Scientists (WDTS) Champions, Brookhaven National Laboratory           |
| Apr.2020 | Mastering Online Teaching, PC-GSU                                                                                    |
| Jul.2019 | CE/CME Certificate from CITI (Collaborative Institutional Training Initiative) program                               |
| Jun.2019 | Learning Impact Convening, PC-GSU                                                                                    |
| Apr.2019 | STAR certificate, PC-GSU                                                                                             |
| Jun.2014 | Engineer in Training (EIT026247)                                                                                     |
| Dec.2014 | Six Sigma Yellow Belt, Athens Technical College, Division of Economic Development                                    |
| Nov.2014 | Phase II of the Faculty Development Institute, The Technical College System of Georgia, Division of Academic Affairs |
| Feb.2014 | Phase I of the Faculty Development Institute, The Technical College System of Georgia, Division of Academic Affairs  |

## SCHOLARLY WORKS

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### ***Thesis***

#### *Doctoral*

Large eddy simulation of flow in water and wastewater disinfection reactors (Advisor: Dr. Thorsten Stoesser; Co-Advisor: Dr. Jaehong Kim, August 2011)

#### *Master's*

The Shape Design of Automotive Torque Converter's Reactor Blade and the Effect of Its Tail Edge Shapes on the Torque Transmitting Performance (Advisor: Dr. Sehyun Shin, February 2002)

### ***Publications***

*Published (\*: Corresponding author)*

1. Athanasios Angeloudis, Thorsten Stoesser\*, Roger A. Falconer, Dongjin Kim "Flow, transport and disinfection performance in small- and full-scale contact tanks." *Journal of Hydro-environment Research*, Volume 9, Issue 1, Pages 15-27, March 2015.
2. Athanasios Angeloudis, Thorsten Stoesser\*, Dongjin Kim, Roger A. Falconer "Modelling of flow, transport and disinfection kinetics in contact tanks." *Proceedings of the ICE – Water management*, Volume 167, Issue 9, Pages 532-546, February 2014.
3. Dongjin Kim\*, Thorsten Stoesser, Jae-Hong Kim "Modeling aspects of flow and solute transport simulations in water disinfection tanks." *Applied Mathematical Modelling*, Volume 37, Issues 16–17, 1 September 2013.
4. Dongjin Kim, Thorsten Stoesser\*, Jae-Hong Kim "The effect of baffle spacing on hydrodynamics and solute transport in serpentine contact tanks." *Journal of Hydraulic Research*, Vol. 51, Iss. 5, April 2013.
5. Dongjin Kim, Dooil Kim, Jaehong Kim, and Thorsten Stoesser\* "Large Eddy Simulation of Flow and Tracer Transport in Multichamber Ozone Contactors." *Journal of Environmental Engineering*, 136(1), 22-31, January 2010.

**Conference Presentations**

1. Sam J. Friedman, Andrew D. Kim, Youngsoo Lee, "The study on vertical serpentine mixing chamber's flow characteristics controlled by downstream baffle's configuration using planar laser induced fluorescence," *EWRI Congress*, Atlanta, GA, USA (2022).
2. Andrew Dongjin Kim "Objective scoring partial credits by tracking failure cascade in mechanics problem solving." *ASEE Annual Conference* (2020).
3. Dongjin Kim "The Effect of Video Supplements for Face-to-Face Classes." *Faculty Development Day Presentation*, Georgia State University (2019).
4. Savas Mavridis, Dongjin Kim "GPS Guided Soil Analyzing Rover: How The Internet of Things Can Aid in the Consumption of Scarce Environment Resources," *ACM Mid-Southeast Conference*, Gatlinburg, TN, USA (2016).
5. Athanasios Angeloudis, Thorsten Stoesser, Dongjin Kim, Roger A. Falcone, "CFD Study of Flow and Transport Characteristics in Baffled Disinfection Tanks," *Proceedings of 2013 IAHR Congress* © 2013 Tsinghua University Press, Beijing
6. Dongjin Kim, Mehtap Cakmak, and Thorsten Stoesser "A nested grid based Large Eddy Simulation tool to predict flow, turbulence and transport in the near field," *GoM Oil Spill & Ecosystem Conference*, New Orleans, LA, USA (2013).
7. Dongjin Kim, Thorsten Stoesser, and Juan A. Gonzalez-Castro "Assessing Index-Velocity Rating Uncertainty in Wind Influenced Open-Channel Flow Using LES," *ASCE/EWRI Hydraulic Measurements and Experimental Methods Conference*, Snowbird, UT, USA (2012).
8. Dongjin Kim, Jae-Hong Kim, and Thorsten Stoesser "LES of flow in an ozone contactor: mean and instantaneous turbulent flow characteristics," *IAHR*, Vancouver, Canada (2009).
9. Varun Gandhi, Min Cho, Dongjin Kim, Dooil Kim, Wright, H., Lee, K., Philip Roberts, Thorsten Stoesser, and Jaehong Kim "UV Process Flow Visualization and Quantification Using 3-D Laser Induced Fluorescence," *Water Environmental Federation Disinfection Conference*, Atlanta, GA (2009).
10. Varun Gandhi, Min Cho, Dongjin Kim, Dooil Kim, Wright, H., Lee, K., Philip Roberts, Thorsten Stoesser, and Jaehong Kim "UV Process Flow Visualization and Characterization Using 3-D Laser Induced Fluorescence," *AWWA-Annual Conference and Exposition*, Atlanta, GA (2008).
11. Dongjin Kim, Jae-Duk Jang, In-Sik Joo "A Study Of Secondary Flow Loss Coefficient Relating To Torque Converter Flat Ratio," *KSAE 2005 Fall Conference* (2005).
12. Dongjin Kim, Dongil Kim, Jaeduk Jang, Insik Joo "Performance Analysis Of A High Capacity Torque Converter For Tank With Three Dimensional Flow Simulations," *KIMST Summer Conference* (2003).
13. Sehyun Shin, Kyungjoon Kim, Dongjin Kim, Insik Joo, Jonghae Hong, Youngki Jang "The Effect Of Reactor Blade Geometry On The Performance Of An Automotive Torque Converter," *SAE 2002 Conference* (2002).
14. Dongjin Kim, Insik Joo, Jonghae Hong, Sehyun Shin, Byungchul Lee "The Effect Of The Trailing Edge Configuration Of A Reactor On The Performance Of A Torque Converter," *KSAE Spring Conference* (2002).

**Poster Presentations**

1. Andrea Green, Michelle Martinez, and Andrew Dongjin Kim “Drinking Water Disinfection Chamber’s Mixing Performance Enhancement by Utilizing the Nappe Flow Characteristics.” *Herty Medalist Undergraduate Research Symposium* (2020).
2. Dongjin Kim “Grading Algorithm for Cascading Failures and Propagation of Precision Error for the Engineering Course Exams,” *ACM Southeast Conference*, Eastern Kentucky University, Richmond, KY, USA (2018).
3. Dongjin Kim and Thorsten Stoesser “Investigation of the chamber width effect in a flexible chamber width ozone contactor using Large Eddy Simulation,” *Georgia Tech Research and Innovation Conference* (2011).
4. Dongjin Kim, Jae-Hong Kim, Philip Roberts, Thorsten Stoesser “Numerical Analysis of Flow in an Ozone Contactor.” *Carl E. Kindsvater Symposium*, Georgia Institute of Technology (2008).
5. Dongjin Kim, Hideaki Kosuge, Jae-Duk Jang, In-Sik Joo “Development Of Extremely Flat Torque Converter For Automatic Transmission Systems,” *FISITA* (2006).

**LAST UPDATED: 10/25/2023**