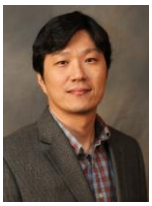


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## Research Area

Thermal/Fluid sciences in renewable energy systems; Heat and mass transfer in thermo-fluids, Modeling and analyses of steady/transient system dynamics related to high temperature fuel cell and gas turbine hybrid systems, Alternative fuel reforming process and integration, Multiphase flow, Mechanical part/system design, and Rotordynamics of turbo-machinery

## Academic Training

| Degree | Major | Institution | Year |
|---|---|---|---|
| Ph.D. | Mechanical Engineering | University of Texas at Arlington | 2013 |
| M.S. | Mechanical Engineering | University of Arizona | 2008 |
| B.S. | Mechanical Engineering | Hong-Ik university | 2001 |

Dissertation title: Integrated Modeling Approach for Solid Oxide Fuel Cell-Based Power Generating System

## Professional Experience

- Assistant Professor in Tuskegee University, Nov., 2013 ~
- Postdoctoral research associate in University of Texas at Arlington, May, 2013 ~ Oct., 2013
- Adjunct Lecturer in University of Texas at Arlington (UTA), Summer, 2013
- Graduate Teaching Assistant in University of Texas at Arlington, Fall, 2012 ~ Spring, 2013
- Adjunct Lecturer in University of Texas at Arlington (UTA), Summer, 2012
- Graduate Teaching Assistant in University of Texas at Arlington, Fall, 2011 ~Spring, 2012
- Graduate Research Assistant in University of Texas at Arlington, Spring, 2009 ~ Spring, 2011
- Graduate Teaching Assistant in University of Arizona, Spring, 2007 ~ Fall, 2008
- Graduate Research Assistant in University of Arizona, Fall, 2005 ~ Fall, 2006
- R&D Manager in Amotech Co., Ltd.(KOSDAQ), April 2001 ~ May 2004

## Awards and Honors

- Summer faculty in Naval Surface Warfare Center (NSWC) at Philadelphia, 06/2017~08/2017
- Summer faculty in Naval Surface Warfare Center (NSWC) at Philadelphia, 06/2016~08/2016
- Summer faculty in Naval Surface Warfare Center (NSWC) at Philadelphia, 06/2015~08/2015
- Graduate Tuition Fellowship, Fall, 2012 ~ Spring, 2013
- STEM Doctoral Fellowship, Fall, 2011 ~ Spring, 2012
- Teaching and Research Assistant Fellowship, Summer, 2011 ~ Spring, 2012
- Mechanical and Aerospace Engineering STEM Fellowship, Spring, 2009 ~ Summer, 2011
- Office of Graduate School (OGS) Scholarship, 2009

## Journal Publications

- (submitted) Jeongpill Ki, “Integrated model development for Solid Oxide Fuel Cell-based power generating system”, International Journal of Energy and Environmental Engineering, 2018
- Jeongpill Ki and Daejong Kim, "Performance evaluation of dynamic model of compact heat exchange reformer for high temperature fuel cell systems", Journal of Fuel Cell Science and Technology, Vol. 11 (2014), Issue 1, 011006-1 (9 pages)
- Jeongpill Ki, “Integrated modeling approach of Solid Oxide Fuel Cell based power generation system”, Ph.D. dissertation, University of Texas at Arlington, May, 2013
- Peiwen Li, Jeongpill Ki, Hong Liu, “Aanalysis and Optimization of Current Collecting Systems in PEM Fuel Cells”, International Journal of Energy and Environmental Engineering, 3 (2012), Issue 1, pp. 1-10
- Daejong Kim, Jeongpill Ki, Young-Cheol Kim, Kook young Ahn, “Extended three-dimensional thermo-hydrodynamic model of radial foil bearing”, Journal of Engineering for Gas Turbines and Power, 134 (2012), Issue 5, 052501 (13 pages)
- Jeongpill Ki and Daejong Kim, “Dynamic modeling of compact heat exchange reformer for high temperature fuel cell systems”, Journal of Fuel Cell Science and Technology, 9 (2012), Issue 1, 011013 (16 pages)

- Jeongpill Ki and Daejong Kim, "Computational model to predict thermal dynamics of planar solid oxide fuel cell stack during start-up process”, Elsevier Journal of Power Sources, 195(2010), pp. 3186-3200

## Conference proceedings/Presentations

- Daejong Kim, Jeongpill Ki, Youngcheol Kim, Kookyoung Ahn, 2011, “Extended Three-Dimensional Thermo-hydrodynamic Model of Radial Foil Bearing: Case studies in Turbine Simulator”, International Joint Tribology Conference, IJTC 2011-61129, Oct 24-26, Los Angeles, CA, USA
- Jeongpill Ki, Daejong Kim, Srikanth Honavara-Prasad, 2010, “Dynamic Modeling of Two Dimensional Compact Heat Exchange Reformer For High Temperature Fuel Cell Systems”, Presented in 2010 Fuel Cell Seminar and Exposition, October 18-21, 2010, Henry B. Gonzalez Convention Center, San Antonio, TX, USA
- Srikanth Honavara-Prasad, Daejong Kim, Jeongpill Ki, 2010, “Computational Model for Transient and Steady State Characteristics of a One-dimensional Steam Reformer”, Presented in 2010 Fuel Cell Seminar and Exposition, October 18-21, 2010, Henry B. Gonzalez Convention Center, San Antonio, TX, USA

## Conference proceedings/Presentations (Continued…)

- Jeongpill Ki and Daejong Kim, 2009, "Analytical Model to Predict Thermal Dynamics of Planar Solid Oxide Fuel Cell Stack During Start-up Process", Presented in 2009 Fuel Cell Seminar and Exposition, Nov 16-19, 2009, Palm Springs Convention Center, Palm Spring, CA, USA
- Peiwen Li, Deva Coopamah, Jeongpill Ki, 2008, "Uniform Distribution of Species in Fuel Cells using a Multiple Flow Bifurcation Design", Presented in ASME 6th International Fuel Cell Science, Engineering and Technology Conference, June 16-18, 2008, Denver, CO, USA
- Peiwen Li and Jeongpill Ki, 2007, "Analysis and Optimization of Current Collecting Systems in PEM Fuel Cells," Presented in ASME 5th International Fuel Cell Science, Engineering and Technology Conference, June 18-20, 2007, New York, NY, USA

## Teaching Experiences

- Tuskegee University
  - MENG 0211 – Statics: spring, 2014 and 2015
  - MENG 0311 – Thermodynamics: spring, 2014 ~ present
  - MENG 0317 – Measurement and Analysis Laboratory: spring, 2014 ~ present
  - MENG 0414 – Heat Transfer: fall, 2014 ~ present
  - MENG 0441 – E.I.T Review, fall, 2015 ~ fall, 2016
  - MENG 0493K/0590K – Fuel Cell Technology, spring, 2017

- University of Texas at Arlington
  - MAE 3318 – Kinematics and Dynamics: summer, 2013 (Adjunct Lecturer)
  - MAE 3318 – Kinematics and Dynamics: fall, 2012 ~ spring, 2013 (Teaching Assistant)
  - MAE 3318 – Kinematics and Dynamics: summer, 2012 (Adjunct Lecturer)
  - MAE 3318 – Kinematics and Dynamics: fall, 2011~ spring, 2012 (Teaching Assistant)

- University of Arizona
  - AME 331 **–** Fluid Mechanics: fall, 2007 ~ fall, 2008 (Teaching Assistant)
  - AME 230 – Thermodynamics: spring, 2007 (Teaching Assistant)
  - AME 302 – Numerical Analysis: fall, 2006 (Teaching Assistant)

## Skills

MS Office, C++, ANSYS (CFD), MATLAB & Simulink, LABVIEW, CATIA V5 (3D design), AutoCAD (2D design), Techplot, OriginPro, MathCAD, etc.