



Curriculum Vitae

Hanjoo Kim

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AFFILIATION

3rd year in Combined Master-Ph.D. Program
Ulsan National Institute of Science and Technology (UNIST)
50, UNIST-gil, Ulsan 44919, Republic of Korea

EDUCATION

Combined Master-Ph.D. program

- Major: Nuclear Engineering
- UNIST, Ulsan, Korea, 2016.03 - Present

Bachelor of Engineering

- Major: Nuclear Science and Engineering
- UNIST, Ulsan, Korea, 2010.03 - 2016.02

WORK EXPERIENCE

- Internship
 - Analysis of Reactor Transient and Stability Lab., UIUC (2015.07. 06–2015.08.28)
 - IAEA internship (2016. 08~2017.01, Austria)

RESEARCH INTEREST

- Nuclear Fusion
- Double Heterogeneity Treatment using Equivalence Theory
- Multi-Physics Coupling with T/H code and Fuel Performance code
- Sensitivity Analysis and Uncertainty Quantification of Nuclear Reactor system

TRAINING

- TRAINING (International)
 - FJOH-SS 2017 (Karlsruhe, Germany, August 2017)
 - HPC Winter School 2018 (Tsukuba, Japan, February 2018)
- TRAINING (Domestic)
 - Training on Criticality Analysis of Spent Nuclear Fuel (Daejeon, June 2015)
 - Advanced Visual MCNP6 Workshop (Daejeon, November 2015)
 - McCARD Developer Training Course (Seoul, February 2016)

PUBLICATIONS
SCI Journal

1. **Hanjoo Kim**, Sooyoung Choi, Minyong Park, Deokjung Lee*, and Hyun Chul Lee, "Extension of Doubly Heterogeneity Treatment Method for Coated TRISO fuel Particles," *Annals of Nuclear Energy*, **Vol. 99**, pp. 124-135, January 2017
2. Sooyoung Choi, Kord Smith, **Hanjoo Kim**, Taewoo Tak, Deokjung Lee, "On the Diffusion Coefficient Calculation in Two-step Light Water Reactor Core analysis," *Journal of Nuclear Science Technology*, **Vol. 54**, pp. 705-715, March 2017.
3. Chidong Kong, Jiwon Choe, Seongpil Yum, Jaerim Jang, Woonghee Lee, **Hanjoo Kim**, Wonkyeong Kim, Nguyen Hoang Nhat Khang, Nguyen Dong Cao Tung, Vutheam Dos, Deokjung Lee*, Ho Cheol Shin, Masao Yamanaka, and Cheol Ho Pyeon, "Application of Advanced Rossi-alpha Technique to Reactivity Measurements at Kyoto University Critical Assembly," *Annals of Nuclear Energy*, Under review (2018)
4. Jiankai Yu, Hyunsuk Lee, **Hanjoo Kim**, Peng Zhang, Deokjung Lee*, "Preliminary Coupling of the Thermal/Hydraulic Solvers in the Monte Carlo Code MCS for Practical LWR Analysis", *Annals of Nuclear Energy*, Accepted for Publication

International
Topical Meeting

1. Kiho Kim, **Hanjoo Kim**, Hyunsuk Lee, Sooyoung Choi, and Deokjung Lee*, "Benchmark Analysis of NCA Tungsten Experiment," RPHA15 Conference, Jeju, Korea, September 16-18, 2015
2. **Hanjoo Kim**, Kiho Kim, Hyunsuk Lee, Sooyoung Choi, and Deokjung Lee*, "Analysis of NCA Tungsten Experiment by New Monte Carlo code," PHYSOR2016, Sun Valley, ID, USA, May 1-5, 2016
3. Sooyoung Choi, Minyong Park, Youqi Zheng, Chidong Kong, Jiwon Choe, **Hanjoo Kim**, Kiho Kim, Ho Cheol Shin, Deokjung Lee, "Development Status of Reactor Physics Code Suite in UNIST," Croatian Nuclear Society, Zadar, Croatia, June 5-8, 2016.
4. Jiankai Yu, Hyunsuk Lee, **Hanjoo Kim**, Peng Zhang, Deokjung Lee, "Preliminary Validation of MCS Multi-Physics coupling capability with CTF," RPHA17, Chengdu, Sichuan, China, August 24-25, 2017.
5. **Hanjoo Kim**, Wonkyeong Kim, Frederik Reitsma, Gerhard Stydom and Deokjung Lee, "Uncertainty Quantification of Pebble bed reactor fuels using Sampling method: Contribution of manufacturing parameters and cross section uncertainty," PHYSOR2018, Cancun, Mexico, April 22-26, 2018.

6. Jiankai Yu, **Hanjoo Kim**, Hyunsuk Lee, Matthieu Lemaire, Peng Zhang, Deokjung Lee*, “Verification of Monte Carlo code MCS Coupled with CTF and FRAPCON”, PHYSOR2018, Cancun, Mexico, April 22-26 ,2018
7. Ho Cheol Shin, **Hanjoo Kim**, Jinsu Park, Jiankai Yu, Deokjung Lee, “Reactivity Initiated Accident Analysis Method using Multi-Physics Coupled Code System Based on RAST-K v2.0,” TOPFUEL 2018, Prague, Czech, Sep. 30–Oct. 4, 2018

International and Domestic Conferences

1. **Hanjoo Kim**, Sooyoung Choi, Deokjung Lee*, and Hyun Chul Lee, “Extension of STREAM Double Heterogeneity Method to Coated TRISO Particles,” KNS Spring Meeting, Jeju, Korea, May 12-13, 2016
2. **Hanjoo Kim**, Jinsu Park, Jiwon Choe, Jiankai Yu, “Multi-physics Coupled Reactor Core Analysis System of RAST-K2.0 with CTF and FRAPCON”, Jeju, Korea, May 16-18, 2018

ENGLISH CERTIFICATION

TOEIC 880

COMPUTER SKILL

Fortran programming, Python script, MATLAB script, Shell script

REACTOR CORE ANALYSIS CODE

MCNP, Serpent, Visual MCNP Editor, CASMO, SIMULATE, SCALE

COURSES TAKEN

Fundamentals of Nuclear Engineering
 Introduction to Nuclear Fuel Cycle Engineering
 Nuclear Materials Engineering and Experiment
 Introduction to Nuclear Reactor Theory
 Nuclear Engineering Design and Lab I
 Nuclear Reactor Lab
 Introduction to Nuclear Engineering IT
 Nuclear Reactor Numerical Analysis
 Numerical Analysis and Applications
 Nuclear Reactor Core Analysis I & II
 Nuclear Dynamics
 Nuclear Fuel Engineering
 Parallel Computing