



Curriculum Vitae

Yunki Jo

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Department of Nuclear Engineering
Ulsan National Institute of Science and Technology
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AFFILIATION

Combined Masters and Ph.D. Program (2nd semester)
Ulsan National Institute of Science & Technology (UNIST)
UNIST-gil 50, Ulsan Metropolitan City, Republic of Korea, 44919

EDUCATION

Graduate (Combined Masters and PhD Program), Ulsan National Institute of Science and Technology, Korea (September, 2016 – Now)
• 1st track: Nuclear Science and Engineering
Undergraduate, Ulsan National Institute of Science and Technology, Korea (March, 2012 – August, 2016)
• 1st track: Nuclear Science and Engineering
• 2nd track: Mechanical Engineering

WORK EXPERIENCE

- BEAVRS benchmark problem analysis using CASMO-4E/SIMULATE-3
- Spent Fuel Rack Design using McCARD
- Monte Carlo Code Development (MCS)
 - Adjoint weighted kinetics parameter calculation module
- Coupling of SERPENT-2 and SIMULATE-3 for BWR full core simulation
- Analysis of simplified BWR full core with SERPENT-2/SIMULATE-3 hybrid stochastic/deterministic code (EPFL, Swiss, August, 2015 ~ November, 2015)

RESEARCH INTERESTS

- Adjoint Weighted Kinetics Parameters
- Hybrid stochastic lattice/deterministic core two-step analysis
- Generalized Perturbation Theory (GPT) in Monte Carlo

CERTIFICATES

- Awards & Scholarship
- Training (International)
 - FJOH 2017 Summer School, Karlsruhe, Germany (September, 2017)
 - SCALE training, “Source Terms and Radiation Shielding for Spent Fuel Transportation and Storage Applications”, Paris, France (March, 2018)
- Training (Domestic)
 - McCARD user training course, Daejeon S& Hotel (Daejeon, August, 2016)
 - MCNP user training course, Hanyang University (HIT, August, 2016)

- McCARD workshop, Seoul National University (SNU, February, 2016)
- McCARD developer training course, Seoul National University (SNU, March, 2015)
- McCARD developer training course, Seoul National University (SNU, March, 2015)
- Geant4 Code Training, Hanyang University (HIT, January, 2015)
- Internship
 - Analysis of simplified BWR full core with SERPENT-2/SIMULATE-3 hybrid stochastic/deterministic code (EPFL, Swiss, August, 2015 ~ November, 2015)
- Membership

PUBLICATIONS SCI Journal

1. Matthieu Lemaire, Hyunsuk Lee, Bamidele Ebiwonjumi, Chidong Kong, Wonkyeong Kim, **Yunki Jo**, Jinsu Park and Deokjung Lee*, “Verification of Photon Transport Capability of UNIST Monte Carlo Code MCS”, *Comput. Phys. Commun.*, Accepted for Publication (2018)
2. **Yunki Jo**, Mathieu Hursin, Deokjung Lee*, Hakim Ferroukhi and Andreas Pautz, “Analysis of Simplified BWR Full Core with SERPENT-2/SIMULATE-3 Hybrid Stochastic/Deterministic Code,” *Annals of Nuclear Energy*, Accepted for publication (2018)
3. **Yunki Jo**, Chidong Kong, Jiankai Yu, Deokjung Lee* and Sihwan Kim, “High Accuracy Boronmeter Design Developed for Light Water Reactor,” *Annals of Nuclear Energy*, 110: 25-30. (2017)

International Topical Meeting

1. Vutheam Dos, Hyunsuk Lee, **Yunki Jo**, Matthieu Lemaire, Chang Je Park and Deokjung Lee*, “Verification of MCS Monte Carlo Code for the JRTR Research Reactor,” PHYSOR2018, Cancun, Mexico, April 22-26 (2018) [Oral Presentation]
2. Peng Zhang, Hyunsuk Lee, **Yunki Jo** and Deokjung Lee*, “Monte Carlo Adjoint Eigenmode Calculation with the Application of Modified Power Method,” PHYSOR2018, Cancun, Mexico, April 22-26 (2018) [Oral Presentation]
3. Matthieu Lemaire, Hyunsuk Lee, Bamidele Ebiwonjumi, Chidong Kong, Wonkyeong Kim, **Yunki Jo**, Jinsu Park and Deokjung Lee*, “Development of photon-transport capability in UNIST Monte Carlo code MCS”, PHYSOR2018, Cancun, Mexico, April 22-26 (2018) [Oral Presentation]
4. Matthieu Lemaire, Hyunsuk Lee, Bamidele Ebiwonjumi, Chidong Kong, Wonkyeong Kim, **Yunki Jo**, Jinsu Park and Deokjung Lee*, “Recent Work on Photon Transport with UNIST Monte Carlo Code MCS”, *RPHA17*, Chengdu, Sichuan, China, August 24-25 (2017) [Oral presentation]
5. Chidong Kong, Hyunsuk Lee, Matthieu Lemaire, Wonkyeong Kim, **Yunki Jo**, Jinsu Park, Jiwon Choe, Bamidele Ebiwonjumi and Deokjung Lee*, “Introduction to UNIST Spent Nuclear Fuel Transportation Package Analysis Code System”, *RPHA17*, Chengdu, Sichuan, China, August 24-25 (2017)
6. Vutheam Dos, Hyunsuk Lee, **Yunki Jo**, Deokjung Lee* and Chang Je Park, “Verification of MCS Model of the Jordan Research and Training Reactor for Neutronic Calculations”, *RPHA17*, Chengdu, Sichuan, China, August 24-25 (2017)
7. **Yunki Jo** and Deokjung Lee*, “Verification of Adjoint-Weighted Tally Calculation Capability in MCS,” *PHYSOR 2016*, Sun Valley, ID, USA, May 1-5 (2016)

**International
and Domestic
Conferences**

1. **Yunki Jo**, Jiankai Yu, Hyunsuk Lee and Deokjung Lee*, “Sensitivity and Uncertainty Analysis of UAM TMI-1 Pin-cell with UNIST Monte Carlo Code MCS,” Transactions of the Korean Nuclear Society Spring Meeting, Jeju, Korea, May 16-18 (2018) [Oral presentation]
2. Hyunsuk Lee, Wonkyeong Kim, Peng Zhang, Azamat Khassenov, **Yunki Jo**, and Deokjung Lee*, “Development Status of Monte Carlo Code at UNIST”, KNS 2016 spring, Jeju, Korea, May 11-13 (2016)
3. **Yunki Jo** and Deokjung Lee*, “Implementation of Adjoint-Weighted Kinetics Parameter Calculation in MCS,” *Transactions of the Korean Nuclear Society Spring Meeting*, Jeju, Korea, May 6-8 (2015)
- 4.

PATENT