



# Curriculum Vitae

## Yunki Jo

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Ulsan National Institute of Science and Technology  
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### AFFILIATION

Combined Masters and Ph.D. Program (2<sup>nd</sup> 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)  
• 1<sup>st</sup> track: Nuclear Science and Engineering  
Undergraduate, Ulsan National Institute of Science and Technology, Korea (March, 2012 – August, 2016)  
• 1<sup>st</sup> track: Nuclear Science and Engineering  
• 2<sup>nd</sup> 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)
- 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. **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 (2017)
2. **Yunki Jo**, Chidong Kong, Jiankai Yu, Deokjung Lee\* and Sihwan Kim, “High Accuracy Boronmeter Design Developed for Light Water Reactor,” *Annals of Nuclear Energy*, Published Online. (2017)

**International  
Topical Meeting**

1. **Yunki Jo**, Peng Zhang, Hyunsuk Lee and Deokjung Lee\*, “Verification of Generalized Perturbation Theory Method in MCS Monte Carlo Code”, *BEPU 2018*, Real Collegio, Lucca, Italy, May 13-19 (2018)
2. Mattheiu Lemaire, Hyunsuk Lee, Bamidele Ebiwonjumi, Chidong Kong, Wonkyeong Kim, **Yunki Jo**, Jinsu Park, Deokjung Lee\*, “Recent Work on Photon Transport with UNIST Monte Carlo Code MCS”, *RPHA17*, Chengdu, Sichuan, China, August 24-25 (2017)
3. Chidong Kong, Hyunsuk Lee, Mattheiu Lemaire, Wonkyeong Kim, **Yunki Jo**, Jinsu Park, Jiwon Choe, Bamidele Ebiwonjumi, Deokjung Lee\*, “Introduction to UNIST Spent Nuclear Fuel Transportation Package Analysis Code System”, *RPHA17*, Chengdu, Sichuan, China, August 24-25 (2017)
4. Vutheam Dos, Hyunsuk Lee, **Yunki Jo**, Deokjung Lee\*, 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)
5. **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. 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)
2. **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)
- 3.

**PATENT**