

As of June 1, 2018



Curriculum Vitae

Nguyen Dong Cao Tung

T. +82-10-7403-1301/ tungnguyen@unist.ac.kr
Ulsan National Institute of Science and Technology
UNIST Gil-50(44919), Ulsan, Republic of KOREA

AFFILIATION

Graduate student – 2nd year at Combined Master-PhD Program (March 2017 - present)
Ulsan National Institute of Science & Technology (UNIST)
UNIST-gil 50, Ulsan Metropolitan City, Republic of Korea, 44919

EDUCATION

Bachelor of Engineering

- Major: Nuclear engineering
- University of Dalat, Dalat, Lam Dong, Vietnam (2012.09~2017.01)

WORK EXPERIENCE

- Computational Reactor Physics and Experiment Lab (UNIST, Ulsan Republic of Korea / Prof. Lee Deokjung)
- Verification and validation of Monte Carlo Code MCS
 - LPPT Analysis for APR-1400 reactor core
 - VERA Benchmark Problems
- Design study of Lead-cooled Fast Reactor by MCS and MC²/TOWDANT/REBUS
 - ALFRED - Advanced Lead-cooled Fast Reactor European Demonstrator
 - Conceptual design for Small Modular LFR

RESEARCH INTERESTS

- Reactor Criticality Analysis
- Monte Carlo Simulation - Reactor design
- Lead-cooled Fast Reactor design

SKILLS

- Computer Skills: MATLAB, PYTHON

- Nuclear-physics Code: MCNP, UNIST Monte Carlo Code MCS, SERPENT, MC²/TOWDANT/REBUS, UNIST Deterministic Code STREAM

CERTIFICATES

- Training (International)
 - Research reactor Kyoto University Critical Assembly (KUCA) Experiment, Kyoto University (Osaka, October, 2017).
- Membership
 - Korean Nuclear Society Student Member (May, 2017 – present)

PUBLICATIONS

SCI Journal

1. **Tung Dong Cao Nguyen**, Jiwon Choe, Bamidele Ebiwonjumi, Matthieu Lemaire and Deokjung Lee, “Conceptual Design of Long-cycle Small Modular Lead-cooled Fast Reactor,” International Journal of Energy Research, Under review (2018).
2. 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).

International Topical Meetings

1. **Tung Dong Cao Nguyen**, Jiwon Choe, Bamidele Ebiwonjumi, Matthieu Lemaire, and Deokjung Lee, “Conceptual Core Design of a Small Modular Fast Reactor Cooled by Lead-bismuth Eutectic,” PHYSOR2018, Cancun, Mexico, April 22-26 (2018).
2. **Tung Dong Cao Nguyen**, Hyunsuk Lee, Jiwon Choe, Ho Cheol Shin, Hwan Soo Lee and Deokjung Lee, “LPPT Analysis of APR1400 Reactor Core by UNIST Monte Carlo Code MCS,” Reactor Physics Asia 2017 (RPHA17) Conference, Chengdu, China, August 24-25 (2017).
3. Bamidele Ebiwonjumi, **Tung Dong Cao Nguyen**, Jiwon Choe, Deokjung Lee, “MCS Analysis of IAEA Lead-Cooled Fast Reactor Core Neutronics Benchmark,” PHYSOR2018, Cancun, Mexico, April 22-26 (2018).

International and Domestic Conferences

1. **Tung Dong Cao Nguyen**, Hyunsuk Lee and Deokjung Lee, “MCS Multi-physics Solutions to VERA Core Benchmark Problems,” ICSMNSE8 2018, Ottawa, Ontario, Canada, Oct. 9-11 (2018) [Submitted]

2. **Tung Dong Cao Nguyen**, Jiwon Choe and Deokjung Lee, "A Conceptual Study of Small Modular LFR," ISTC NIKIET 2018, Moscow, Russia, Oct. 2-5 (2018) [Paper accepted]
3. **Tung Dong Cao Nguyen**, Hyunsuk Lee and Deokjung Lee, "VERA Progression Benchmark Analysis with MCS," NURER 2018, Jeju, Korea, Sep. 30 - Oct. 3 (2018) [Abstract Submitted]
4. **Tung Dong Cao Nguyen**, Hyunsuk Lee, and Deokjung Lee, "VERA Solutions by UNIST MC Code MCS," 2018 KNS Spring Meeting, Jeju Island, Korea, May 16-18 (2018).
5. **Tung Dong Cao Nguyen**, Jiwon Choe and Deokjung Lee, "Assessment of Material Homogenization for Fast Reactor Design Using MCS and MC²/TWODANT/REBUS," 2017 KNS Autumn Meeting, Gyeongju, Korea, October 25-27 (2017).

PATENT

1. Deokjung Lee, **Nguyen Tung Dong Cao**, Jiwon Choe, Kiho Kim, Woonghee Lee, "Fast Reactor Core," KOR Patent application number: 10-2018-0052628, patent pending, May 8 (2018)

SOFTWARE COPYRIGHTS

1. Deokjung Lee, Peng Zhang, Matthieu Lemaire, Jiankai Yu, Sooyoung Choi, Hyunsuk Lee, Chidong Kong, Jiwon Choe, Hanjoo Kim, Bamidele Ebiwonjumi, Wonkyeong Kim, Jinsu Park, Yunki Jo, Kiho Kim, Jaerim Jang, **Tung Dong Cao Nguyen**, Khang Hoang Nhat Nguyen, Woonghee Lee, Tuan Quoc Tran, Yongmin Jo, Sanggeol Jeong, Eun Jeong, Khassenov Azamat, Vutheam Dos, XSLINK-Fuel Assembly XS Processing, C-2018-008346, Korea Copyrights Commission (2018)
2. Deokjung Lee, Peng Zhang, Matthieu Lemaire, Jiankai Yu, Sooyoung Choi, Hyunsuk Lee, Chidong Kong, Jiwon Choe, Hanjoo Kim, Bamidele Ebiwonjumi, Wonkyeong Kim, Jinsu Park, Yunki Jo, Kiho Kim, Jaerim Jang, **Tung Dong Cao Nguyen**, Khang Hoang Nhat Nguyen, Woonghee Lee, Tuan Quoc Tran, Yongmin Jo, Sanggeol Jeong, Eun Jeong, Khassenov Azamat, Vutheam Dos, MCS-Depletion Calculation, C-2018-008347, Korea Copyrights Commission (2018)
3. Deokjung Lee, Peng Zhang, Matthieu Lemaire, Jiankai Yu, Sooyoung Choi, Hyunsuk Lee, Chidong Kong, Jiwon Choe, Hanjoo Kim, Bamidele Ebiwonjumi, Wonkyeong Kim, Jinsu Park, Yunki Jo, Kiho Kim, Jaerim Jang, **Tung Dong Cao Nguyen**, Khang Hoang Nhat Nguyen, Woonghee Lee, Tuan Quoc Tran, Yongmin Jo, Sanggeol Jeong, Eun Jeong, Khassenov Azamat, Vutheam Dos, MCS-Multigroup Transport, C-2018-008345, Korea Copyrights Commission (2018)

4. Deokjung Lee, Peng Zhang, Matthieu Lemaire, Jiankai Yu, Sooyoung Choi, Hyunsuk Lee, Chidong Kong, Jiwon Choe, Hanjoo Kim, Bamidele Ebiwonjumi, Wonkyeong Kim, Jinsu Park, Yunki Jo, Kiho Kim, Jaerim Jang, **Tung Dong Cao Nguyen**, Khang Hoang Nhat Nguyen, Woonghee Lee, Tuan Quoc Tran, Yongmin Jo, Sanggeol Jeong, Eun Jeong, Khassenov Azamat, Vutheam Dos, MCS-Photon Transport, C-2018-008350, Korea Copyrights Commission (2018)
5. Deokjung Lee, Peng Zhang, Matthieu Lemaire, Jiankai Yu, Sooyoung Choi, Hyunsuk Lee, Chidong Kong, Jiwon Choe, Hanjoo Kim, Bamidele Ebiwonjumi, Wonkyeong Kim, Jinsu Park, Yunki Jo, Kiho Kim, Jaerim Jang, **Tung Dong Cao Nguyen**, Khang Hoang Nhat Nguyen, Woonghee Lee, Tuan Quoc Tran, Yongmin Jo, Sanggeol Jeong, Eun Jeong, Khassenov Azamat, Vutheam Dos, MCS-VHTR calculation, C-2018-008344, Korea Copyrights Commission (2018)
6. Deokjung Lee, Peng Zhang, Matthieu Lemaire, Jiankai Yu, Sooyoung Choi, Hyunsuk Lee, Chidong Kong, Jiwon Choe, Hanjoo Kim, Bamidele Ebiwonjumi, Wonkyeong Kim, Jinsu Park, Yunki Jo, Kiho Kim, Jaerim Jang, **Tung Dong Cao Nguyen**, Khang Hoang Nhat Nguyen, Woonghee Lee, Tuan Quoc Tran, Yongmin Jo, Sanggeol Jeong, Eun Jeong, Khassenov Azamat, Vutheam Dos, MCS-PWR calculation, C-2018-008348, Korea Copyrights Commission (2018)
7. Deokjung Lee, Peng Zhang, Matthieu Lemaire, Jiankai Yu, Sooyoung Choi, Hyunsuk Lee, Chidong Kong, Jiwon Choe, Hanjoo Kim, Bamidele Ebiwonjumi, Wonkyeong Kim, Jinsu Park, Yunki Jo, Kiho Kim, Jaerim Jang, **Tung Dong Cao Nguyen**, Khang Hoang Nhat Nguyen, Woonghee Lee, Tuan Quoc Tran, Yongmin Jo, Sanggeol Jeong, Eun Jeong, Khassenov Azamat, Vutheam Dos, MCS-Time-dependent Simulation, C-2018-008349, Korea Copyrights Commission (2018)
8. Deokjung Lee, Peng Zhang, Matthieu Lemaire, Jiankai Yu, Sooyoung Choi, Hyunsuk Lee, Chidong Kong, Jiwon Choe, Hanjoo Kim, Bamidele Ebiwonjumi, Wonkyeong Kim, Jinsu Park, Yunki Jo, Kiho Kim, Jaerim Jang, **Tung Dong Cao Nguyen**, Khang Hoang Nhat Nguyen, Woonghee Lee, Tuan Quoc Tran, Yongmin Jo, Sanggeol Jeong, Eun Jeong, Khassenov Azamat, Vutheam Dos, U-SNF, C-2018-008343, Korea Copyrights Commission (2018)