DAMAR CANGGIH WICAKSONO

PERSONAL INFORMATION

Born in Jakarta, 15 May 1986

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(M) +41 (0) 78 798 5785

EDUCATION

2013-2018 **EPF Lausanne, Switzerland**

Doctor of Science

Nuclear Engineering
Thesis: *Bayesian Uncertainty Quantification of Physical Models in Thermal-Hydraulics System Codes*
Advisors: Prof. Andreas Pautz, Mr. Omar Zerkak, & Dr. Gregory Perret

2010-2012 **EPF Lausanne – ETH Zürich, Switzerland**

Master of Science

Nuclear Engineering · GPA: 5.52/6.00
Thesis: *Development and Assessment of an Improved Temporal Coupling for TRACE/S3K Analysis*
Advisors: Prof. Rakesh Chawla & Mr. Omar Zerkak

2004-2009 **Universitas Gadjah Mada, Indonesia**

Bachelor of Engineering

Nuclear Engineering · GPA: 3.92/4.00
Thesis: *Multiobjective Optimization of PWR Fuel Loading Pattern using Simulated Annealing Algorithm*
Advisor: Dr. Alexander Agung

WORK EXPERIENCE

2013–2018 **Paul Scherrer Institut / EPF Lausanne**

Doctoral Assistant

- Developed and validated novel methodology for inverse uncertainty quantification of nuclear safety analysis code using Bayesian statistics and techniques.
- Applied Gaussian process regression technique for metamodeling a computationally expensive simulation code.
- Gained skills in Python and `R` programming.
- Project embedded within the STARS program, a Swiss technical safety organization supporting the Swiss Federal Nuclear Safety Inspectorate (ENSI).
- Frequent technical reporting in an independent working environment.

Aug-Nov 2011 **Paul Scherrer Institut**

Intern

Tested, analyzed, and validated different Monte Carlo-based simulation codes for in-core nuclear fuel utilization.

Jul-Oct 2011 **Kernkraftwerk Leibstadt AG**

Intern

Industrial internship in the Safety Analysis Group, developing computer model of nuclear power plant for deterministic safety analysis purpose. Gained experience in writing technical report.

PUBLICATIONS AND CONFERENCE CONTRIBUTIONS

D. Wicaksono, O. Zerkak, and A. Pautz, "Global Sensitivity Analysis of Transient Code Output applied to a Reflood Experiment Model using TRACE Code," *Nuclear Science and Engineering*, vol. 184, no. 6, 2016.

D. Wicaksono, O. Zerkak, and A. Pautz, "Bayesian Caliration of Thermal-Hydraulics Model with Time-Dependent Output," in the *11th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-11)*, Gyeongju, South Korea, Oct. 9–13, 2016.

D. Wicaksono, O. Zerkak, and A. Pautz, "A Methodology for Global Sensitivity Analysis of Transient Code Output applied to a Reflood Experiment Model using TRACE," in the *16th International Topical Meeting on Nuclear Reactor Thermal-Hydraulics*, Chicago, Illinois, Aug. 30 – Sept. 4, 2015.

D. Wicaksono, O. Zerkak, and A. Pautz, "Sensitivity Analysis of a Bottom Reflood Simulation using the Morris Screening Method," in the *10th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-10)*, Okinawa, Japan, Dec. 14 – 18, 2014.

D. Wicaksono, O. Zerkak, and A. Pautz, "Exploring Variability in Reflood Simulation Results: an Application of Functional Data Analysis," in the *10th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-10)*, Okinawa, Japan, Dec. 14 – 18, 2014.

COMPUTER SKILLS

Basic C++, Adobe Illustrator

Intermediate Shell scripting, Matlab, FORTRAN77/90, LaTeX, Microsoft Office

Advanced PYTHON, R

AWARDS AND ACCOLADES

2015 · Best Student Paper · NURETH-16, American Nuclear Society

2014 · Best Student Paper · NUTHOS-11, Japanese Nuclear Society

2014 · Best 1st Year Graduate Student · NES PhD Day, PSI

2010-12 · Excellence Scholarship · Federal Commission for Scholarship, CH

2009 · Cum Laude Graduate · Universitas Gadjah Mada, Indonesia

Languages

INDONESIAN · Mother tongue

ENGLISH · Professional fluency

FRENCH · Intermediate (B1)

GERMAN · Basic (A1.2)

February 8, 2018