

## Lect. PhD AHMET KAĞAN MERCAN

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Karlsruhe Institute for Technology, Mechanical Engineering, Germany 2017 - 2023

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Nükleer Enerji Mühendisliği A.B.D., Turkey 2014 - 2017

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Nükleer Enerji Mühendisliği Bölümü, Turkey 2010 - 2014

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Severe accident investigations for VVER-reactors including radiological impact and quantification of uncertainties, Karlsruhe Institute for Technology, 2023

Postgraduate, VVER reaktöründe toryum-uranyum yakıtların ısı-hidrolik performans analizi, Hacettepe University, Fen Bilimleri Enstitüsü, 2017

### Research Areas

Fluid Mechanics, Pressure Vessels and Piping, Conventional Energy Systems and Their Technology, Fluid Machinery, Renewable Energy Systems, Nuclear Energy, Alternative Energy Resources, Advanced Energy Technologies, Heat and Mass Transfer, Fuels and Combustion, Computational fluid dynamics, Thermal Systems, Thermal machines

### Academic Titles / Tasks

Lecturer, Hacettepe University, Mühendislik Fakültesi, Nükleer Enerji Mühendisliği Bölümü, 2023 - Continues

Researcher, Karlsruhe Institute for Technology, 2017 - 2023

### Published journal articles indexed by SCI, SSCI, and AHCI

- KIT reactor safety research for LWRs: Research lines, numerical tools, and prospects**  
Mercan A. K., Sanchez-Espinoza V. H., Gabrielli F.  
NUCLEAR ENGINEERING AND DESIGN, vol.414, pp.112573, 2023 (SCI-Expanded)

**II. Validation of Astec2.1 using Quench-12 for VVER-Reactors**

Mercan A. K., Sanchez-Espinoza V. H., Gabrielli F.

NUCLEAR ENGINEERING AND DESIGN, vol.395, pp.50-65, 2022 (SCI-Expanded)

**III. Analysis of the consequences of a LBLOCA with SBO severe accident in a generic VVER-1000 by means of ASTEC and JRODOS codes**

Mercan A. K., Sanchez-Espinoza V. H., Gabrielli F., Raskob W.

NUCLEAR ENGINEERING AND DESIGN, vol.400, pp.112078, 2022 (SCI-Expanded)

**Metrics**

Publication: 3

Citation (Scopus): 5

H-Index (Scopus): 1