Ioannis Kourasis

Nuclear Engineer

kourasisgiannis@gmail.com

+30 6945254628

London, UK

Ioannis Kourasis

SKILLS

Computational Physics
MOOSE, Python, Monte Carlo tools

Engineering
AutoCAD, SOLIDWORKS, MATLAB

Microsoft Office
Word, PowerPoint, Excel

Programming
Python, C++, Java, JavaScript, SQL, HTLM, CSS, NodeJS, Markdown, VSCode

Probabilistic Risk Assessment
SAPHIRE

Model Development
Development, Verification and Validation

Public Speaking
Technical and Business Presentations

Team Leadership

Project Management

Highly Effective Problem Solving

Determined and Persistent

LANGUAGES

Greek
Native

English
Fluent – C2

German
Basic – A2

ABOUT

A dedicated Nuclear Engineer spearheading the development of marine applications for Advanced Nuclear. Currently leading initiatives at CORE POWER, focusing on the Analysis and Engineering of Floating Nuclear Power Plants and Nuclear Electric ships. Proficient in Advanced Nuclear Reactors, Nuclear Safety and Security, Multiphysics Modelling, MC and CAD tools. Eloquent speaker with experience in presenting at various global events.

WORK EXPERIENCE

Nuclear Engineer 08/2022 - current
CORE POWER UK LTD | London

- Leading the company's Nuclear Engineering efforts directly managing 2 Engineers and working in a multidisciplinary team of 10+ experts on nuclear safety and licencing of advanced reactors.
- Contributing to the development of the DOE $170M funded Molten Chloride Fast Reactor alongside 40+ engineers between Core Power, Terra Power and Southern Company.
- Performing Radiation Transport and Multiphysics Modelling to design Floating Nuclear Power Plants that are safe, licensable, and insurable.
- Playing a pivotal role in Regulatory and Industry collaborations, partnering with over 30 international entities from the Nuclear and Shipping industries such as TerraPower, Southern Company, WNTI, IAEA, MIT, INL, NRIC, NRI, LR, and ABS.
- Presented and spoke at over 20 global events, advocating for the benefits of Advanced Nuclear.

Nuclear Engineering Intern 07/2022 - 08/2022
CORE POWER UK LTD | London

- Developed Emergency Planning Zone sizing methodology for commercial marine applications using SMRs
- Developed Radiation Transport Model using the Point Kernel method to calculate the Maximum Effective Dose during DBAs.

Advanced Materials Researcher 10/2021 - 04/2022
Department of Physics NTUA | Athens

- Calibration and use of Nanoparticle based sensors for real time gas sensing experiments
- Developed PCA code for Data Analysis in Python, over 1.500 hours of R&D in total.

EDUCATION

MEng in Applied Mathematics and Physics
National Technical University of Athens

-Specialized in “Nuclear Physics” and “Advanced Technological Materials”
- Dissertation: “Platinum Nanoparticle Sensors with the Application of Detecting Commercial Pesticides”, Grade: 10/10

CERTIFICATES AND COURSES

Modelling Experimentation and Validation (MeV) School
Idaho National Laboratory | 2023

- 50x Lectures by industry experts on Nuclear Modelling Codes (MOOSE), Nuclear Safety and PRA codes (Saphire, Emerald) followed by a group project

CNSsP Nuclear Security for Engineers
World Institute of Nuclear Security (WINS) | 2023

Modelling in Nuclear Science and Engineering Seminar
Nuclear Institute | 2023