

## Data Science Postdoctoral Research Position

*Do you appreciate the beauty of mathematics and its value in formulating a concise description of our world?*

*Do you enjoy a game of cat-and-mouse against a formidable adversary?*

*Do you ever think about how a computer algorithm can really emulate the brain function?*

*Do you enjoy thinking about how to reverse-engineer a secret process or software?*

Professor Abdel-Khalik's research group (<http://ceri.as/hany>) at the School of Nuclear Engineering, Purdue University, has two openings for 2-year research postdoctoral positions (annual salary: 50K-70K) with a start date of **October 1<sup>st</sup>, 2020**. The successful candidates will be engaged in a number of projects focused on advancing the role of data science for a wide range of nuclear engineering applications, e.g., modeling-based engineering, safety, cybersecurity, and performance optimization. A prospective candidate is expected to have a PhD degree in nuclear engineering, or closely related field, with strong background in mathematics and statistics. Preference will be given to candidates with qualifications in data science and artificial intelligence. Other considerations include:

- general understanding of the principles of mathematical modeling in engineering applications, e.g., materials modeling, thermal-hydraulics modeling, transport modeling, etc.,
- experience in the development of physics-based or data-driven models, strong familiarity with principles of Bayesian statistics, semi-empirical fitting, mathematical inference, uncertainty quantification,
- experience in working with and developing large computer codes,
- experience in programming with high level languages, e.g., Python, C++, Java, etc.
- written communication skills as demonstrated by peer-reviewed publications.

To respond to this ad, qualified candidates should submit the following documents: a) cover letter, b) detailed resume listing all publications, positions held, synergistic activities, awards, etc., c) research statement (2 pages max) outlining the candidate's research interests and vision, d) two key peer-reviewed publications that highlight the candidate's past research accomplishments.

Please combine the documents in the noted order into a single PDF file, not to exceed 20 Mbytes, and named `PostDocPurdueAppl_Lastname_Firstname.PDF`, and email to: Prof. Abdel-Khalik, [abdelkhalik@purdue.edu](mailto:abdelkhalik@purdue.edu) with the subject line, RE: Post Doc Position Application. Position will remain open until filled.