# DEPARTMENT OF NUCLEAR ENGINEERING AND RADIATION SCIENCE Syed Bahauddin Alam

#### Reactor Physics Modeling & Simulation

- Near-term deployable small reactors
- Multiphysics

#### Advanced Fuel Cycles

- Composite nuclear material
- Accident-tolerant fuel/cladding
- Fuel cycle design

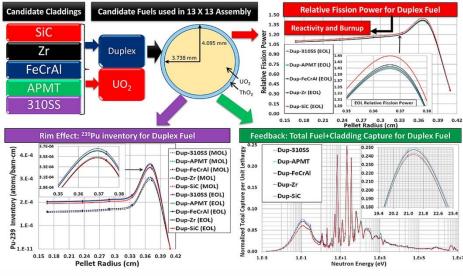
## Machine Learning

- Uncertainty quantification
- sensitivity analysis
- Deep learning
- Artificial intelligence

## PoC:

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## Advanced nuclear reactor concept

#### Keywords

#Radiation-transport; #advanced-small-core;
#Nonproliferation; #Multiphysics; #Machine-learning;
#Uncertainty-quantification; Sensitivity analysis.

#### Recognitions

- Outstanding Teaching Award, Missouri S&T, 2021
- Best Student Paper Award at the ICAPP 2016
- Best Technical Poster Award at NURETH-16, 2015



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