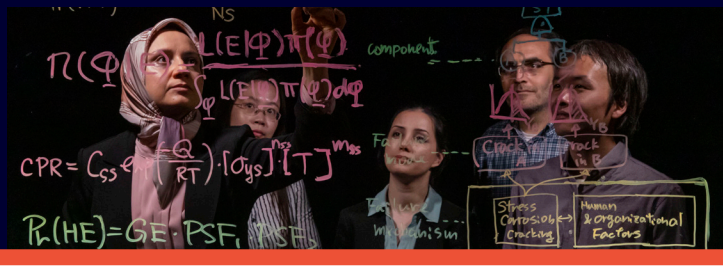
ILLINOIS
Nuclear, Plasma & Radiological Engineering
GRAINGER COLLEGE OF ENGINEERING



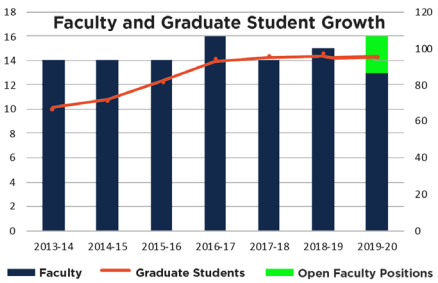
NPRE 2019 Overview

Enrollment, Fall 2019
109 Undergraduates - NPRE
92 Graduate Students - NPRE
23 Graduate Students - Master of Engineering, Energy Systems

Degrees Granted
(August 2018-May 2019)
30 Bachelor of Science Degrees
13 Master of Science Degrees
19 Master of Engineering Degrees
9 Doctor of Philosophy Degrees

Graduate Student Support
60 Research Assistants
6 Teaching Assistants
13 Combined RA/TA/Departmental Fellowships
9 DOE–**1**, NSF–**2**, NRC–**5**, NASA–**1** (and other prestigious national fellowships)
1 International Fellowship

Faculty
13 FTE Faculty
(4 Assistant, 4 Associate, 5 Full Professors)
3 Open Tenure-track Positions
2 Endowed Professorships
1 Research Professor
21 Affiliate, adjunct faculty
3 Emeritus



Research and Endowment
$7.6M – FY19 sponsored research expenditures
$9.2M – new awards since August 2018

Growth and Recognitions

Recent Industrial Partnerships

ASML
DuPont
General Fusion
General Motors
Applied Materials
Exelon Corporation
Starfire Industries, LLC
South Texas Project Nuclear Operating Co.
LytEN
POSCO
LAM Research
Tokamak Energy
Lockheed Martin
Tokyo Electron Ltd.

National Awards

10 ANS/IEEE/APS/AVS/SPIE Fellows
11 ANS Mark Mills Award (3 in last 5 years)
3 ANS Landis Young Member Award
3 ANS MJ Oestmann Award (2015-2017)
3 ASEE Glenn Murphy Award
2 ANS Arthur Holly Compton Award
2 ANS Radiation Sci and Tech Award
ANS Landis Public Comm and Ed Award
ANS Outstanding Achievement Awards (FED, Mat Sci & Tech Div)
ANS Seaborg Medal
ANS Young Member Excellence Award
AESJ Shorei-Sho Award
DOE Presidential Young Investigator Award
IEEE Nuclear & Plasma Sciences Award

Research Centers and Laboratories, and Initiatives

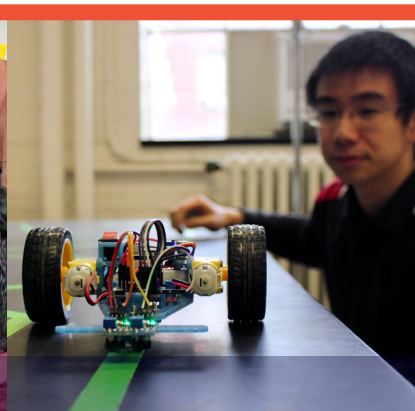
- Center for Plasma-Material Interactions
- Computational Plasma Physics Lab
- Functional X-ray Imaging Lab (FXIL)
- HIDRA (tokomak/stellarator)
- High Temperature Corrosion Lab
- High Temperature Nuclear Materials Lab
- Magnetron Sputtering Lab
- Multiphase Thermo-Fluid Dynamics Lab
- Neutron Metrology Lab
- Radiation Detection & Imaging Lab
- Radiological Instrumentation Lab
- Radiation Surface Science and Engineering Lab
- Socio-Technical Risk Analysis (SoTeRiA) Lab
- Soft Robotics & Artificial Intelligence Lab
- Virtual Education and Research Lab
- Micro and Nanotechnology Lab
- Seitz Materials Research Lab
- Beckman Institute for Adv Sci & Tech
- Blue Waters Sustained Petascale Computing
- North American Technical Center (NATC), Information System on Occupational Exposure (ISOE) (The other three such centers are in Vienna, Tokyo and Paris.)
- Industry-sponsored research for plasma-radiation-material interactions, and nuclear power

Instructional and Research Areas

Three paths for undergraduate concentration:
- Nuclear Power, Safety, Environment, and Reliability/Risk
- Plasma and Fusion Science and Engineering
- Radiological, Medical and Instrument Applications

Graduate research is broadly classified in five areas:
- Nuclear Power (reactor physics, thermalhydraulics, fuel cycle, radiation transport, I&C)
- Plasma and Fusion (modeling, plasma-material interactions)
- Radiological Sciences (detectors, imaging, health physics, medical applications)
- Material Science (nuclear fuels, structural materials)
- Risk and Policy (PRA, safety, energy, arms controls, disarmament, security)



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