# NUCLEAR POWER INSTITUTE

About NPI K-12 College and Beyond

Educators Educational Partners

Industry Training

# Nuclear Power Technology Certificate Nuclear Power Plant Fundamentals Nuclear Power Plant Systems Nuclear Power Plant Operations Human Performance For NPP Engineers

# Roadmap to Operational Excellence

# DEVELOPING THE NUCLEAR INDUSTRY WORKFORCE

Concerns about rising electricity demand and clean air are among the factors driving interest in nuclear technology. Nuclear energy is the only electricity source that can generate electricity 24/7 reliably, efficiently and with no greenhouse-gas emissions. NPI is developing the human resources and preparing the workforce for the current nuclear power plants and the potential new reactors to be built in Texas and around the country. These vital workforce needs are being met through a broad partnership with industry, two year community and technical colleges, four year universities, high schools, middle schools, science and math teachers, state government, Federal agencies, and elected and civic leaders.

## SKILLED WORKERS ARE NEEDED FOR EXISTING AND NEW REACTORS

Two thirds of these will require associate degrees with specialization in:

- Nuclear power plant systems
- Radiation protection Digital instrumentation and control
- Also needed: engineers with undergraduate degrees in:
- Nuclear engineering
- Mechanical engineering
- Chemical engineering
- Electrical engineering
- Engineering technology
- Engineering physics

Knowledge of nuclear power plant technology is required.

## The NPI partnership and programs are meeting all these needs.

Why Nuclear Power? People working in the field are optimistic about nuclear power because

- The energy produced per amount of material consumed is the highest
- available; Uranium-235 can produce 3.7 million times as much energy as the
- same amount of coal; Costs are competitive with coal, the major source used in the world;
- Uranium, the source material, is abundant; Plutonium, a by-product of commercial nuclear plant operation, can
- also be used as a fuel; Nuclear energy produces less waste than any major energy
- production process; and Nuclear power plants do not pollute our air by avoiding carbon dioxide emissions.

# **NPI News**

#### Palacios POWER SET Visits South Texas Project

October 26, 2017 On Thursday, October 12th. Palacios POWER SET visited the South Texas Project to



tour the training facility, simulator, and resevoir, as well as meet... >> Read More

#### POWER SET and Robotics Teams Compete at Coastal Bend Engineering Competition

October 12, 2017 On Friday October 6th, 2 teams including 5 POWER SET and 4 WIT members of "Robosharks" competed at



Texas A&M-Corpus Christi in the Coastal Bend ... >> Read More

#### POWER SET Inducts Sixteen New Members

October 9, 2017 On Thursday, October 5th, sixteen new members were inducted to the POWER SET organization. POWER SET is an acronym for Powerful Opportunities for Wom... >> Read More

# From Power GRID to POWER SET

October 5, 2017 Mai Nguyen, Palacios High School sophomore and new POWER SET member for the 2017-2018



school year, is the first former Power GRID member

>> Read More

# More News:

From Power GRID to POWER