



# A Collaborative Environment for Virginia's Nuclear Energy Industry

Center for Advanced Engineering and Research (CAER)

Virginia Nuclear Energy Consortium (VNEC)

# Virginia's Nuclear Energy Assets

- Close proximity to the NRC, DOE and Washington, DC
- Nuclear engineering degree programs at VT and VCU
  - Other related programs at the UVA, GMU, ODU, and GWU
- Major nuclear energy industry companies in Virginia include:
  - Areva
  - B&W
  - Mitsubishi
  - Toshiba
- The nuclear navy also has a large presence in Virginia - Newport News Shipbuilding and Norfolk Naval Shipyard
- Dominion Power operates two nuclear power stations in Virginia (Surry and North Anna) and together, these four units produce close to 40% of the electricity produced in the state.



# CAER Vision

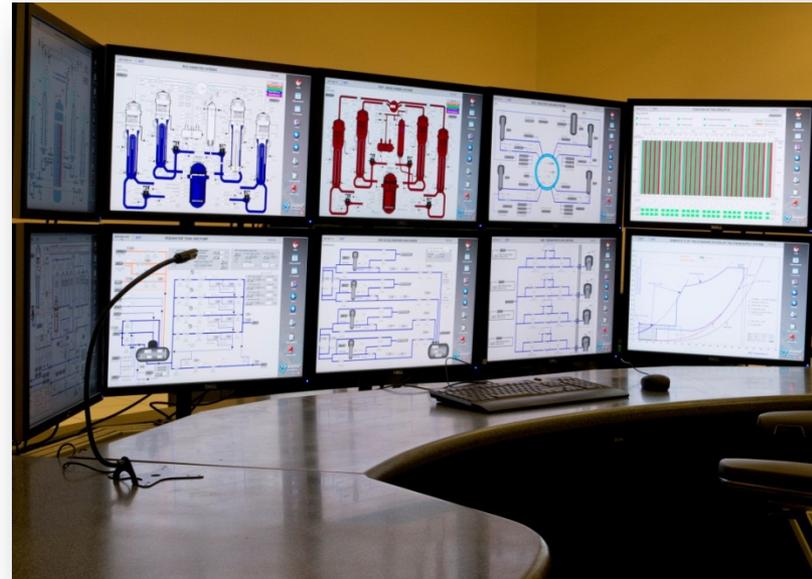
To be a leading center of excellence in safety and security in nuclear instrumentation and control room systems.



A Collaborative  
Research University  
environment here  
in Virginia

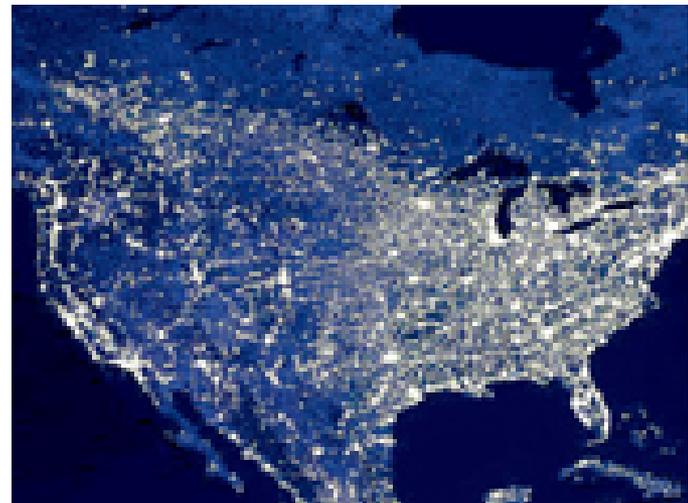
# CAER Mission

- (1) Knowledge Creation** - create new and improved control room technologies for next generation nuclear power plants
- (2) Technology Transfer** - Transfer this technology from the laboratories to practical, commercial applications
- (3) Workforce Development** - Educate the next generation of students in nuclear reactor operation and control, and in the design, analysis, operation, and maintenance of digital I&C systems



# Virginia Nuclear Energy Consortium

- An interdisciplinary study, research and information resource for the Commonwealth of Virginia on nuclear energy
- Major activities include:
  - Educational program and curriculum development
  - Shared laboratory and research facilities
  - Community and K-12 outreach programs
  - Conferences and workshops in nuclear energy



The Center for Advanced  
Engineering & Research

# Virginia Nuclear Energy Consortium

- Created by legislation from the 2013 VA General Assembly effective July 1, 2013
- Board includes six (6) private sector representatives from the nuclear energy industry
- Board includes VCCS, VT, UVA, VCU, GMU and two other rotating university members
- The membership of the Consortium shall be open to:
  - Public or private institutions of higher education in the Commonwealth;
  - Virginia-based federal research laboratories;
  - Nuclear energy-related nonprofit organizations;
  - Business entities with operating facilities located in the Commonwealth that are engaged in activities directly related to the nuclear energy industry;

