Cybersecurity Awareness Education & Workforce Development

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Election Security Efforts in NWI

- Security Awareness Education to our Future Citizens
  - K12 Cybersecurity Camps–
    - NSA/NSF GenCyber camps
    - NSA/NSF K12 Capacity building
      - Covered email, data, and device security, social media safety, misinformation and disinformation about the 2016 election, as well as attacks such as phishing
- Workforce Development
  - Highly qualified professionals
    - Protect cyber infrastructures
    - Fight against election misinformation and dis-information
- Securing Cyber Infrastructures via Applied Research

PNW Workforce Effort

- **A National CAE**
  - a National Center of Academic Excellence in Cyber Defense Education
    - B.S in Computer Information Technology, Cybersecurity Concentration
    - M.S Technology, CIT Concentration, Cybersecurity Certificate
- **Workforce Development**
  - Through Scholarship – Traditional Learners
    - NSF SFS CyberCorps Scholarship Program
    - DoD CySP Scholarship program
  - Certification-Based Training – Adult Learners
    - NSA National AI-Cybersecurity Workforce Training Program
    - Online Certificate Programs

Workforce through Scholarships

- Scholarship -- Traditional Learners
  - NSF/DHS SFS CyberCorps
    - Develop highly qualified professionals
    - Per year benefit
      - $25,000/$34,000 stipend
      - $6,000 professional dev funds
        - Training, travel, certifications
      - Tuition and fees
      - Textbook
    - Obligations
      - Complete B.S or M.S degree
      - Work for federal agencies
  - DoD CySP
    - Similar to NSF SFS CyberCorps
    - Placed at DoD Agencies

CyberCorps®
Defending America's Cyberspace

NSF

National Science Foundation

and

The Department of Homeland Security

hereby certify that

Purdue University Northwest

in collaboration with

Ivy Tech and Moraine Valley Community College

hereby join the

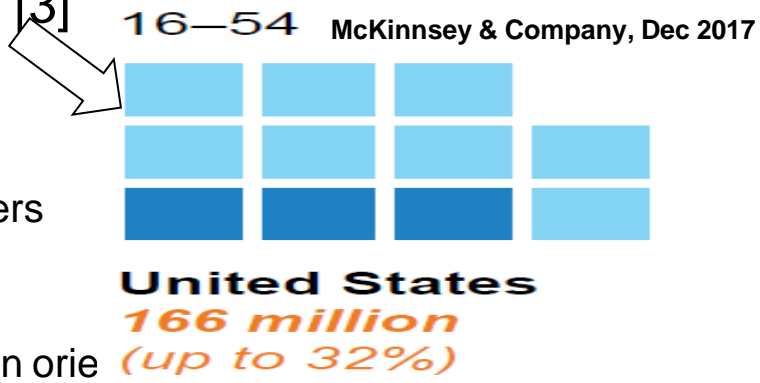CyberCorps®: Scholarship for Service (SFS) Community

Workforce Training

- **National Demands**
  - **780,000** positions unfilled in 2017 and 2.1 million in 2021 [1, 2].
  - Large number: upskilling-job transitioning [3]
- **NSA National Workforce Project**
  - Over 425 adult learners
    - Primarily transitioning military and first responders
    - Free of charge to trainees
      - Laptop loan, textbook, certification voucher
    - Online live courses-hands-on based, certification orie
      - CEH, Security+, Linux+, CyberOPs, A+, CHFI, ACE, Machine learning certifications
  - Offer 3 training tracks
    - Cyber forensics, cybersecurity administration, security and data analysis with AI-machine learning
  - Each participant takes 6 training courses in one year
    - 8 weeks instructions
    - 2 weeks certification preparation
  - Preparation in Year 1 and training offering in Year 2 (9/2021- 9/2022)
    - Potential of future offering based on the availability of funding

16—54   **McKinnsey & Company, Dec 2017**

United States
166 million
(up to 32%)

Securing Critical Infrastructures-Cyber Physical Systems

Current Project: Providing education and training services to PMMI
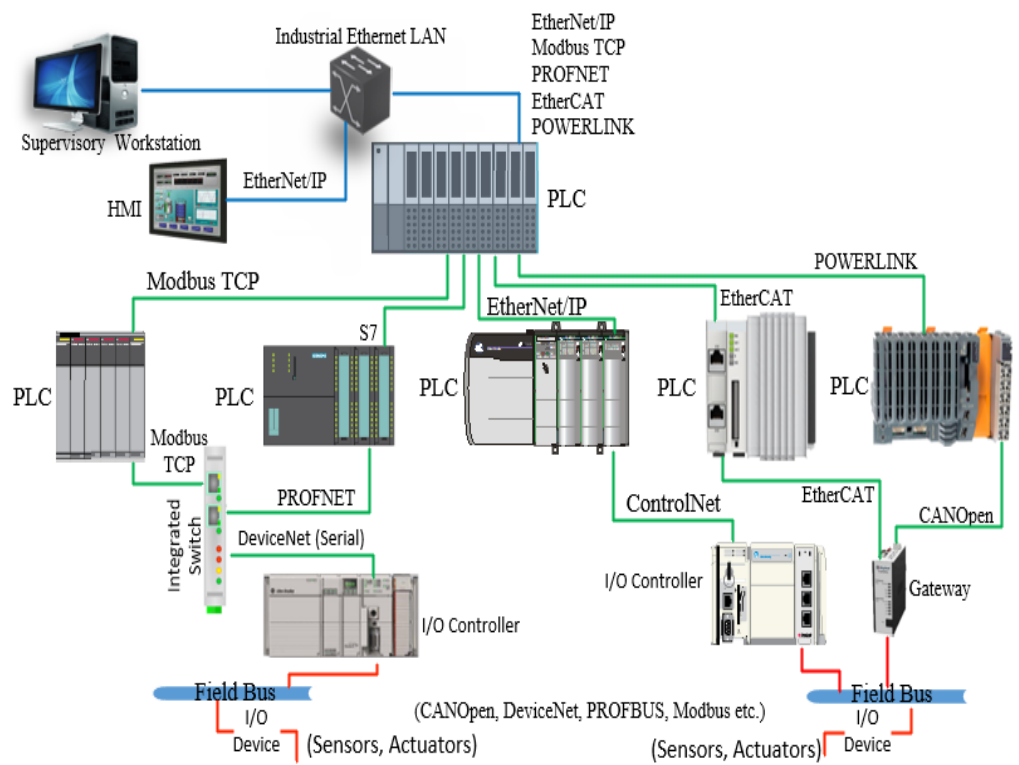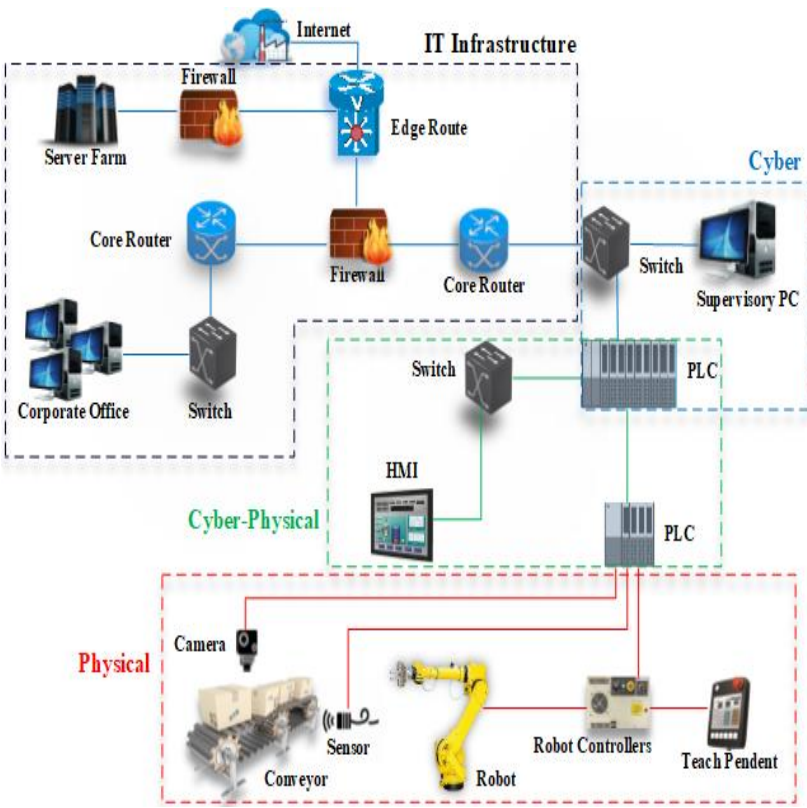
References

- 1. Cybersecurity Ventures. Cybersecurity Jobs Report 2018-2021. https://cybersecurityventures.com/jobs/. 2017.

- 2. GISWS. Global information security workforce Study. https://iamcybersafe.org/wp-content/uploads/2017/06/Europe-GISWS-Report.pdf.

- 3. McKinsey Global Institute, Jobs lost, jobs gained: Workforce Transitions in a time of automation. Dec 2017