Essential Protection for Energy Control Networks

CSP004_C_E

PRESENTATION BY:
ABDELKADER SHAABAN
AIT AUSTRIAN INSTITUTE OF TECHNOLOGY, AUSTRIA
CRISTINA ALCARAZ
UNIVERSITY OF MALAGA, SPAIN

PART 1

Topic 1: Discussion

How does the energy sector's role as a critical infrastructure affect society, and what are the key areas impacted by energy dependence and interdependence?

1

What are the key functional stages of power grid operations, and how do they contribute to the overall process from production to consumption?

2

What is the difference between Distributed Energy resources (DERs) and microgrids?

3

In the event of a successful cyberattack targeting the energy sector, what potential impacts could arise that would compromise the critical infrastructures and services?

4

How does the European Union Cybersecurity Agency (ENISA) monitor and report cybersecurity incidents affecting critical service providers?

5

Which industrial communication protocols are most suitable for both wireless and wired networks within the energy sector?

6

What resources and tools are available for analyzing industrial control system (ICS) network traffic?

What are the key components of traditional control architectures in critical energy systems?

What are the primary challenges faced in managing and securing power control networks?

What types of cyberattacks pose significant threats to wireless communications within the energy sector?

10

What is a vulnerability, and how can existing vulnerabilities within a system lead to varying levels of consequences?

11

What types of vulnerabilities are commonly associated with legacy devices?

PART 2

Practical Activities

Thank you