



**IAEA**

International Atomic Energy Agency

*Atoms for Peace and Development*

# **IDSF – Computer Security Capability Building**

Nuclear Security Information and Computer Security

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# IAEA Nuclear Security Programme



- The Agency has committed to:
  - **Assist States** in establishing effective and sustainable national nuclear security regimes
  - Develop **international guidance** in the Nuclear Security
  - **Strengthening international cooperation**
    - Computer Security Conferences
    - Technical Meetings
    - **Training**
  - Coordination Research Projects



# IAEA Computer Security Training



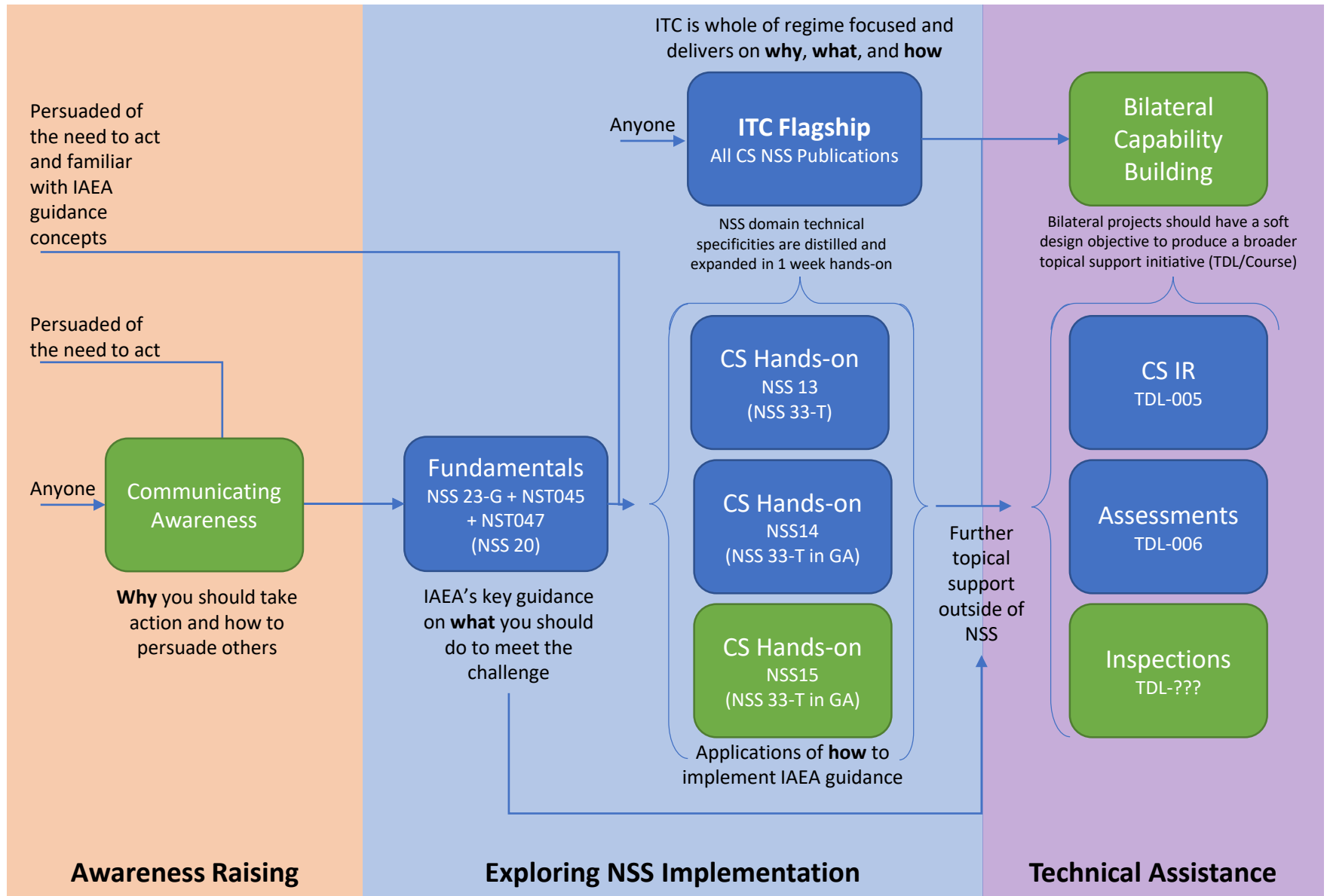
## Primary Training Courses

1. Computer Security Fundamentals for Nuclear Security (New)
2. Conducting Computer Security Assessments at Nuclear Facilities (Updated)
3. Computer Security Incident Response for Nuclear Facilities (New)
4. Computer Security for Industrial Control Systems (ICS) at Nuclear Facilities & Radioactive Materials (New Focus)
5. Protecting Computer Based Systems in Nuclear Security Regimes
6. **Future** - Computer Security Inspections for Nuclear Facilities (2021)



To view the IAEA Nuclear Security Training Catalogue visit:  
<https://nusec.iaea.org/portal/Division-of-Nuclear-Security/Training-Catalogue>

# Capability Building – Redesign Training



# COVID-19 Impacts – 18 Rescheduled Events



## Outreach and Awareness:

- Two (2) technical meeting and development of a community of interest group

## Consultancy Meeting:

- Four (4) consultancy meeting – Training Material Development and Training reviews

## Expert Missions:

- Member States specific request – Regulations and National Exercise – five (5) events

## Training Courses:

- Seven (7) training courses include dry runs and execution
  - Assessments course
  - Fundamentals
  - ITC – Protecting Computer Based-Systems

# Capability Building– Migration to Virtual Events



## NucSecCyber Webinar Series

- Information and Computer Security for Nuclear Security, June 16, 2020
- Operational Technology and Physical Protection Systems, June 30, 2020
- Nuclear Security Threats to I&CS, July 14, 2020
- Legislative and Regulatory Frameworks, July 28, 2020
- Functions and Security Levels, August 11, 2020
- Zones and the Defensive Computer Security Architecture, August 25, 2020
- Technical Vulnerability Management, September 8, 2020

<https://nusec.iaea.org/portal/User-Groups/Computer-Information-Security/NucSecCyber-Webinars>

# Approached to Engage Participants

- Instructor-led Presentations
- Survey Questions
- Pre-recorded Videos
- Scenario-based Learning
  - Branching Scenarios (Simulations)
- Group Discussion/Breakout Rooms
- Building Hands-on Exercises/Skills (Virtual Environment)



# Computer Security Awareness during Covid-19



Increased use of digital tools, remote access, work from home, and remote maintenance and monitoring caused:

- Limited remote access availability (inefficiency)
- Increased Remote Access with limited endpoint security
- Increased information file and screen sharing
- Increase remote third-party support and maintenance



# Covid-19 Cyber Security Impacts

Increase in cyber activities:

- Phishing campaigns
- Remote access vulnerabilities
- Theft of information
- Unauthorized remote access

Security needs:

- Vulnerability management – remote access
- Monitor remote connections (log reviews)
- Use authorized and secured technology and communication

## Threat Attributes



MOTIVATION & INTENT



CAPABILITIES



OPPORTUNITY



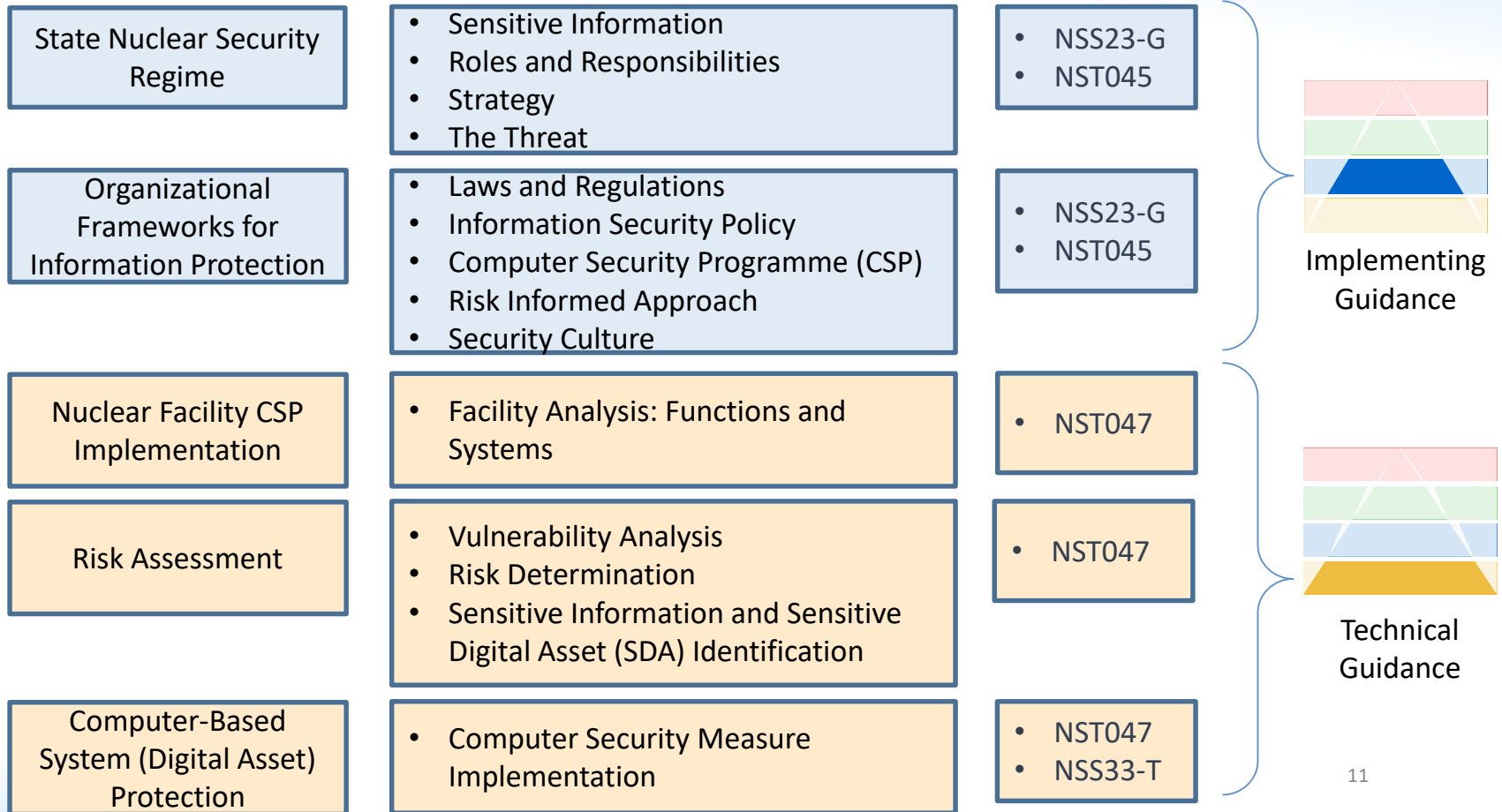
**IAEA**

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*Thank you!*

# Overview of Information and Computer Security NSS Publications



# Virtual Training Migration



Lessons Learned for effective awareness/capability building:

- Time zone constraints
- Interaction and involvement (effectiveness)
- Limited interactions with SMEs, peers, and instructors

## Structured Training Environments

- Virtual/pre-recorded presentation (independent or instructor led)
- Virtual exercises and/or eLearning exercises (independent)
  - Choose your own adventure & topical quizzes
- Breakout Session/Lessons Learned (SME-Instructor lead)

# Promoting Information Exchange

## Cyber Security User's Group

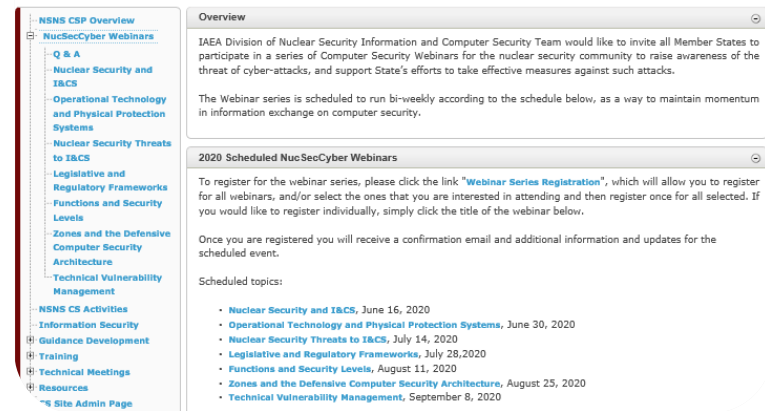
## Webinars



The screenshot shows the IAEA NUSEC Nuclear Security Information Portal. The header includes the IAEA logo, 'IAEA | NUSEC Nuclear Security Information Portal', and a search bar. Navigation links include Home, Office of NucSec, Partners, User Groups, ITDB, NUSIMS, Members' Area, and Help. The main content area is titled 'IAEA Cyber Security Information Portal' and contains a paragraph about technology advancements in nuclear facilities. A sidebar on the left lists various categories like Information Security, IAEA Publications, and Cyber Training.



The banner for 'NucSecCyber Webinars' features the IAEA logo and the text 'Computer and Information Security'. It includes images of a radiation warning sign, a keyboard with a red 'Security' key, and a hand typing on a laptop with a padlock icon.



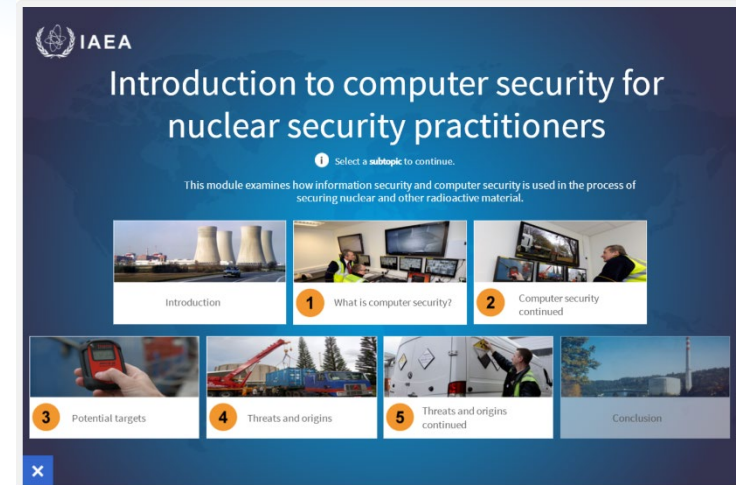
This screenshot shows the registration page for the webinars. It includes a table of contents on the left with items like 'NSNS CSP Overview', 'Q & A', and 'Nuclear Security and I&CS'. The main content area has an 'Overview' section and a '2020 Scheduled NucSecCyber Webinars' section with a list of dates and topics.

IAEA's information portal for cyber security guidance, training, and events

# Online Computer Security Awareness



URL: <https://elearning.iaea.org/m2/course/index.php?categoryid=48>



URL: <https://elearning.iaea.org/m2/course/view.php?id=328>

## Information and computer security E-Learning

- Information and computer security
- Nuclear security threats and risks: cyber threats
- Security of nuclear information
- Conducting computer security assurance activities