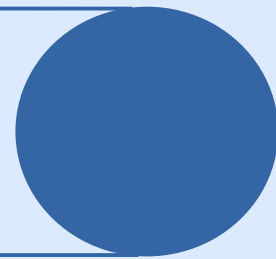




# Cyber-Security Threats and Threat Actors Training

## Assurance Driven Multi-Layer, end-to-end Simulation and Training



## SEPTEMBER 2020 – ISSUE 6

# Newsletter

### Progress

**CTTP models/programmes creation:** TLS renewed, updates in the CTTP Model editor (modified hardware components, new REST APIs). New/updated training programmes.

**Emulation tool:** Definition and design of the second phase of the development. Multiple instances of the same scenario, thanks to the use of the Jasima Visualization Tool (JVT) including information about the session, scenario, and user id. Active monitoring of the trainees' activities by the emulated components. Trainee's runtime activities evaluation based on expected traces and graph modeling of actual trainee's traces. All connections converted to HTTPS.

**Training and Visualization tools:** Improvement of the Training Tool (bug fixes, development in the trainees' scoring method, efficient integration and communication with all other tools). Roadmap of the new features to implement in the Jasima Visualization Tool. "Quiz Manager" and "Quiz Game" components for "Awareness Quest" quiz game. Design of the CTTP models evaluation mechanisms. Updates to the Message Broker (RabbitMQ) level communications (exchanges and queues).

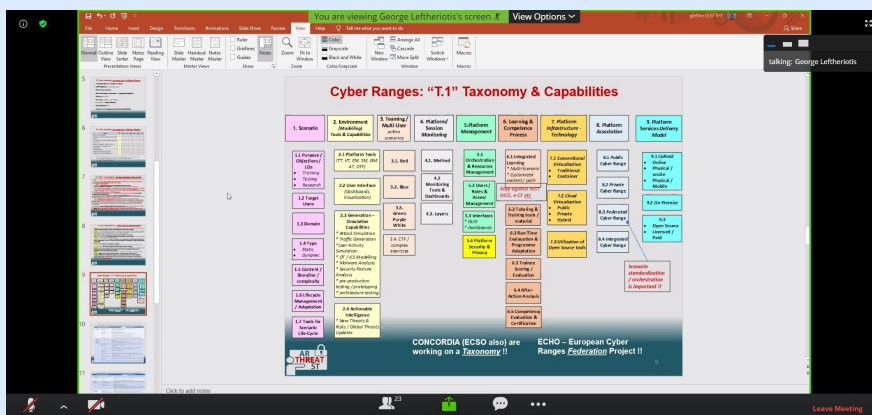
**Simulation Environment:** Improvement of the security of the Simulation tool. Implementation, test and support of the Smart Energy pilot. Full integration of the Data Fabrication Platform in the overall platform.

**Platform Integration and Validation:** Second-phase hardening procedures on access protocols to the platform's services. Access of tools and services through HTTPS, TLS and SSH. Enhanced JVT-based authentication of trainees' access to the platform. Two new CTTP models/programmes integrated in the platform for the Smart Health and Shipping pilots. Preparations underway for the Smart Energy pilot. First successful results on the use of Selenium framework for comprehensive platform-level integration and quality assurance testing.

**Pilots Implementation and Evaluation:** 1st pilot implementation/evaluation phase and training sessions.

### Plenary meeting

The 6<sup>th</sup> THREAT-ARREST plenary meeting was successfully held on June 29<sup>th</sup>-30<sup>th</sup>, 2020 online, because of COVID19 restrictions



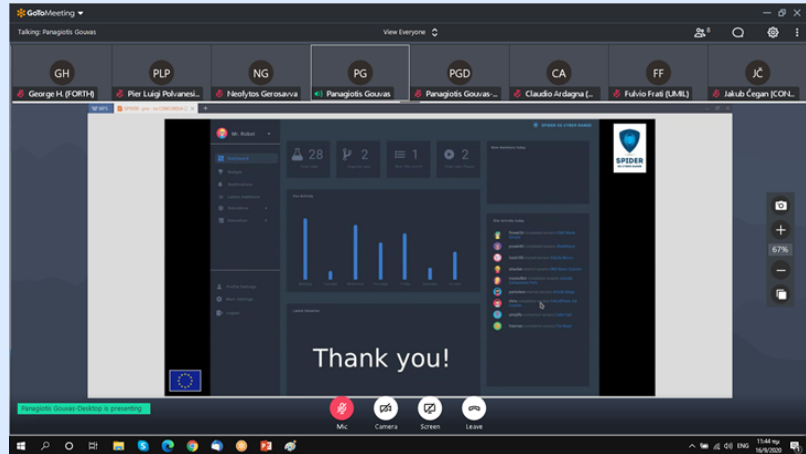
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# Publicity

- ✓ Organization of the 2<sup>nd</sup> MSTEC workshop in conjunction with the ESORICS 2020 online conference
- ✓ Establishment of an Innovation Working Group (IWG) to facilitate the overall innovation aspects of the project
- ✓ Continuous updates of the social media accounts
- ✓ STS participated in the 3<sup>rd</sup> International Conference on CyberSecurity4 Maritime – Oil & Gas – Energy (CYpBER 2020) and presented the THREAT-ARREST project and the overall CTPP modelling concept.
- ✓ The THREAT-ARREST partners were involved in several discussions and presentations for the collaboration between relevant EU projects under the umbrella of CONCORDIA and SPIDER.



# Publications

G. Hatzivasilis, N. Papadakis, I. Hatzakis, S. Ioannidis, G. Vardakis, **"AI-driven composition and security validation of an IoT ecosystem"** at Applied Sciences – Special Issue on Smart City and Multi-Agent Systems, MDPI Open Access Journal, August 2020

G. Hatzivasilis, S. Ioannidis, M. Smyrlis, G. Spanoudakis, F. Frati, L. Goeke, T. Hildebrandt, G. Tsakirakis, F. Oikonomou, G. Leftheriotis, H. Koshutanski, **"Modern aspects of cyber-security training and continuous adaptation of programmes to trainees"** at Applied Sciences – Special Issue on Cyber Security of Critical Infrastructures, MDPI Open Access Journal, August 2020

G. Leftheriotis, **"TÜV HELLAS (TÜV NORD) Leading in the Implementation of Cyber-Security Innovations"** article at TÜV NORD Blog, September 2020

S. Ioannidis and G. Hatzivasilis, **"Cyber-ranges and security training for the maritime sector"** at 4th NMIOTC Conference on Cyber Security in Maritime Domain, NATO, Souda Bay, Chania, Greece, October 2020

G. Hatzivasilis, **"Password Management – How Secure Is Your Login Process"** at 2nd Model-driven Simulation and Training Environments for Cybersecurity (MSTEC), ESORICS, Springer, LNCS, vol., Guildford, UK, September 2020

M. Smyrlis, K. Fysarakis, G. Spanoudakis, G. Hatzivasilis, **"Cyber Range Training Programme Specification through Cyber Threat and Training Preparation Models"** at 2nd Model-driven Simulation and Training Environments for Cybersecurity (MSTEC), ESORICS, Springer, LNCS, vol., Guildford, UK, September 2020

G. Hatzivasilis and M. Kunc, **"Chasing Botnets: A Real Security Incident Investigation"** at 2nd Model-driven Simulation and Training Environments for Cybersecurity (MSTEC), ESORICS, Springer, LNCS, vol., Guildford, UK, September 2020

M. Tsantekidis and V. Prevelakis, **"Software System Exploration using Library Call Analysis"** at 2nd Model-driven Simulation and Training Environments for Cybersecurity (MSTEC), ESORICS, Springer, LNCS, vol., Guildford, UK, September 2020

C. Braghin, S. Cimato, E. Damiani, F. Frati, E. Riccobene, S. Astaneh, **"Towards the Monitoring and Evaluation of Trainees' Activities in Cyber Ranges"** at 2nd Model-driven Simulation and Training Environments for Cybersecurity (MSTEC), ESORICS, Springer, LNCS, vol., Guildford, UK, September 2020

S. Pape, L. Goeke, A. Quintanar, K. Beckers, **"Conceptualization of a CyberSecurity Awareness Quiz"** at 2nd Model-driven Simulation and Training Environments for Cybersecurity (MSTEC), ESORICS, Springer, LNCS, vol., Guildford, UK, September 2020

# Follow us

