



STATE UNIVERSITY OF TRADE AND ECONOMICS

# CERTIFICATE

is presented to

**TETIANA SAVCHENKO**

has participated

Workshops «Challenges and Realities of the IT Space:  
Software Engineering and Cyber Security»  
(SECS-2022 25<sup>th</sup> – 29<sup>th</sup> of October 2022 Kyiv, Ukraine)

*Total: 30 hours (1 credit ECTS)*

**Rector,  
Doctor of Economic Sciences,  
Professor, Academician  
of the National Academy  
of Pedagogical Sciences  
of Ukraine**



**Anatolii MAZARAKI**

Kyiv, October 29<sup>th</sup> 2022

### **Module 1. National Cybersecurity**

1.1	Ensuring National Cybersecurity during the Wartime	(1 hour)
1.2	Fighting against Cyberterrorism and Cybercrimes	(1 hour)
1.3	EU Cybersecurity in Conditions of Foreign Aggression	(1 hour)
1.4	Cybersecurity of Business Entities	(1 hour)
1.5	International Cybersecurity, Fake News and Disinformation	(1 hour)
1.6	Risk Analysis in National Cybersecurity	(1 hour)

### **Module 2. Cybersecurity: Threats and Countermeasures**

2.1	Applied Cryptography and Cryptographic Protocols, Security of Internet of Things and Ubiquitous Systems	(1 hour)
2.2	Novel Authentication and Authorization Methods, Novel Attack Schemes, OSINT Analysis	(1 hour)
2.3	Context-aware, Multi-modal, or Adaptive Access Control, Firewalls, Deep Packet Inspection, Honeypots	(1 hour)
2.4	Biometrics, Machine Learning and Artificial Intelligence in Cybersecurity	(1 hour)
2.5	Social Engineering, Trust and Human Factor in Security	(1 hour)
2.6	Denial of Service and Ransomware Attacks, Man-in-the-Middle and Man-in-the-Browser Attacks	(1 hour)

### **Module 3. User and Citizen Privacy**

3.1	Personal Information Security during Peace and War	(1 hour)
3.2	Privacy Preserving Systems	(1 hour)
3.3	Privacy Enhancing Technologies	(1 hour)
3.4	Management of Sensitive Data in Organization	(1 hour)
3.5	Mobile Device Security	(1 hour)
3.6	Ethical Aspects of User Security and Private Security	(1 hour)

### **Module 4. Security and Software Engineering**

4.1	Software Engineering within Hybrid Threats	(1 hour)
4.2	Secure Software Development	(1 hour)
4.3	Novel Methods for Code Security Assessment	(1 hour)
4.4	Zero Trust Architectures	(1 hour)
4.5	Threat Modeling Methods	(1 hour)
4.6	Privacy by Design	(1 hour)

### **Module 5. Software Designing, Developing and Maintaining**

5.1	Web Design and Web Programming	(1 hour)
5.2	Architecture and Technologies of Mobile Application Programming	(1 hour)
5.3	Enterprise Software Development, Software Testing	(1 hour)
5.4	Database Systems	(1 hour)
5.5	Artificial Intelligence, Expert Systems, Internet of Things	(1 hour)
5.6	Information Technologies in Economics, Information Technologies in Education	(1 hour)

**Total : 30 hours (1 credit ECTS)**