



# INFORMATION SECURITY SERVICES EDUCATION IN SERBIA (ISSES)

*Erasmus+ Key Action 2 – Capacity Building in  
the field of Higher Education (CBHE)*

*University of Novi Sad*

*2017 – 2020*

ISSES 2017-2020  
Novi Sad, Serbia

December 13 <sup>th</sup> , 2017 (Wednesday)	
12:00 – 12:15	Arrival, registration
12:15 – 13:15	Opening session UNS introduction Project status overview
13:15 – 14:00	Lunch
14:00 – 15:30	Consortium member presentations – Focus on Information Security-related activities
15:30 – 15:45	Coffee
16:00 – 17:00	Training #1: Challenges in digital forensics (M. Bača, Croatia)

December 14 <sup>th</sup> , 2017 (Thursday)	
09:00 – 10:00	Training #3: Challenges in critical infrastructure protection (L. Buttyán, Hungary)
10:00 – 10:45	Presentation(s) by the Serbian Erasmus+ office
10:45 – 11:00	Coffee
11:00 – 11:30	Steering Committee set-up
11:30 – 14:00	Course Development Plan roundtable
13:00 – 14:00	Lunch
14:00 – 16:00	Laboratory Development Plan roundtable
16:00 – 16:15	Coffee
16:15 – 16:45	Meeting wrap-up, action items, next steps, next meeting

- Introduction
- Work packages overview
- Existing course @ UNS





- Develop an MSc program specializing in critical infrastructure security
- Draft list of courses:
  - Critical Infrastructure Security || Cyber Security Strategies
  - Advanced Network Security
  - Secure Software Development
  - Cloud Security || Advanced Cryptography
  - Data Mining in Digital Forensics

- **Goals:** Improve Information Security Education & Train new experts in Serbia
  - Novi Sad: MSc in Critical Infrastructure Security
  - Belgrade: MSc in Digital Forensics
  - Subotica: Specialization in Cloud and IoT Security
- **Project Budget:** ~800,000 EUR
- **Project Duration:** October 2017 – October 2020
  - Enroll MSc students as soon as 2018
- **Coordinator:** University of Novi Sad (Prof. Dr. Imre Lendak)
- **Foreign Partners:**
  - CrySys Lab, Budapest, Hungary
  - FOI, Varaždin, Croatia
  - Polimi, Milano, Italy
- **Industrial Partners:**
  - Schneider Electric DMS, Serbia
  - Unicom-Telecom, Serbia
  - Innovation Center Of The University In Niš, Serbia
- **Serbian Universities/Colleges:**
  - University of Novi Sad (P1)
  - University of Belgrade (ETF & FON) (P5)
  - University of Nis (P6)
  - Subotica Tech (P9)

# Associated partners

PID	Name	City	PIC
P11	M&I Systems	Novi Sad	919199064
P12	Singi Engineering Ltd	Belgrade	914898957
P13	Evopro System Engineering	Budapest	996332785
P14	NetVisor	Budapest	989553746
P15	Advanced Security Technologies	Nis	920915576
P16	TIAC Ltd	Novi Sad	936625308
P17	Eccentrix Ltd	Belgrade	
P18	Verisec Labs d.o.o.	Belgrade	
P19	Cisco Serbia Ltd	Belgrade	915360677
	Microsoft Development Center Serbia	Belgrade	(almost)

#	Name & Title	Information Security domain(s)
1	Prof. Goran Sladić, PhD	Cryptography, e-commerce
2	Daniela Rosić, PhD	Secure Software Development
3	Bojan Jelačić, Spec	Cloud Security, Risk Analysis
4	Nikola Luburić, MSc	Secure Software Development
5	Milan Stojkov, MSc	IoT Security
6	Zorana Babić, MSc	Algorithms
7	Imre Lendak, PhD	Standards, critical infrastructures



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# WORK PACKAGES



# Work Packages

ID	Phase	Description
WP1	Preparation	Project Design
WP2	Development	Curriculum Development
WP3	Development	Laboratory Development
WP4	Development	Education Programme Development
WP5	Quality Plan	
WP6	Dissemination & Exploitation	
WP7	Management	

ID	Title
1.1	Baseline Curricula Report
1.2	Repository of Information Security Concepts
1.3	Course Development Plan (CDP)
1.4	Laboratory Development Plan (LDP)

ID	Title
2.1	Critical Infrastructure Security
2.2	Secure Software Development
2.3	Cloud Security
2.4	Security and privacy in the Internet of Things
2.5	Advanced Cryptography
2.6	Advanced Network Security
2.7	Cyber Security Strategies
2.8	Security in E-business Systems
2.9	Risk Analysis and Threat Modelling
2.10	Cyber Incident Analysis and Response
2.11	Data Mining in Digital Forensics
2.12	Digital Forensics Tools and Techniques
2.13	Mobile and Multimedia Forensics

ID	Title
3.1	Lab Design: Critical Infrastructure Security Laboratory (CIS Lab)
3.2	Lab Design: Digital Forensics Laboratory (DF Lab)
3.3	Lab Design: Network Security Laboratory (NS Lab)
3.4	Lab Design: Cloud Security Laboratory (CS Lab)
3.5	Hybrid CIS, CS and NS Lab implementation (P1)
3.6	Hybrid NS and Crypto Lab Implementation (P5)
3.7	NS Lab implementation (P6)
3.8	DF Lab Implementation (P5)
3.9	DF Lab Implementation (P6)
3.10	DF Lab Implementation (P1)
3.11	Hybrid CS and IoT Lab Implementation (P9)

# WP4 – Program Development (UBG)

ID	Title
4.1	MSc Program: Information Security in Critical Infrastructures
4.2	MSc Program: Information Security and Digital Forensics
4.3	Specialization/MSc Program: Security in the Cloud and Internet of Things

# WP5 – Quality Plan (Polimi)

ID	Title
5.1	Quality Plan
5.2	Annual Course Quality Report
5.3	Annual Laboratory Build Report
5.4	Quality Board Meeting
5.5	External Quality Assessment

ID	Title
6.1	Dissemination Plan (DP)
6.2	Exploitation Plan (EP)
6.3	Annual Project Workshop
6.4	Mass Media Dissemination
6.5	Security Services Roundtable
6.6	Web portal setup and maintenance

ID	Title
7.1	Brussels Kick-of Meeting – January 29-30, 2018
7.2	Project Kick-off Meeting – December 13-14, 2017
7.3	Project Steering Committee Meeting
7.4	Project Coordination
7.5	Financial Plan
7.6	Interim and Final Report





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# EXISTING COURSES @ UNS/FTN

# “Smart Grid Security”

Course title (in English)	Security and Safety in Electric Power Systems
Course title (in Serbian)	Sigurnost i bezbednost u elektroenergetskim sistemima
BSc/MSc/PhD/Spec level of studies	BSc – 7 <sup>th</sup> semester – 3+1 week block, project-based Accredited on the MSc level under a different name, but inactive in school year 2017/2018
ECTS credit points	4
Higher education institution (HEI)	FTN – UNS
City	Novi Sad
Information security domains and concepts (5-15 elements covered by the lectures and laboratory exercises)	Introduction; Personnel & Physical Security; Cryptography overview; Secure communication channels (i.e. Network Security); AAA; Malware; Secure Software Development; Privacy and Legal aspects; Information Security Policy; Organizations & Standards;
Professor(s) – name, title, organization, email	Imre Lendak, assistant professor, FTN – UNS lendak@uns.ac.rs

Course title (in English)	E-Business Systems Security
Course title (in Serbian)	Bezbednost u sistemima elektronskog poslovanja
BSc/MSc/PhD/Spec level of studies	BSc
ECTS credit points	4
Higher education institution (HEI)	FTN - UNS
City	Novi Sad
Information security domains and concepts (5-15 elements covered by the lectures and laboratory exercises)	cryptography; PKI infrastructure; XML and web services security; smart card technology; application of security concepts at the level of operating systems, databases, and computer networks; authentication; access control; threat modeling
Professor(s) – name, title, organization, email	Goran Sladić, associate professor, FTN – UNS, sladicg@uns.ac.rs

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**Thank you for your attention!**