IT-SECURITY LAB

LEVEL OF COURSE UNIT

Bachelor

LEARNING OUTCOMES OF COURSE UNIT

This course complements the IT-Security lecture, increasing the students' practical knowledge in this topic. Students can practically assess confidentiality, integrity, and availability of information systems. They can detect threats and specific types of attacks in information systems and can take adequate measures to secure these systems.

COURSE CONTENTS

Contents of this course are:

- Threat environment: Goals of IT security, types of attackers and attacks, planning and managing IT security
- Cryptography and cryptographic system standards: symmetric and public/private key encryption, digital signatures, Hashing, authentication, digital certificates, TSL/SSL, IPSec, wireless security
- Access control: passwords, biometric methods, role-based access control, identity management
- Firewalls: principles, static packet filtering, stateful packet inspection, NAT, intrusion detection and
- Prevention systems, firewall architectures and management
- Host and Data Security: host hardening, vulnerability and exploits, vulnerability testing, data protection and backups
- Application Security: hardening applications, web server attacks, email security
- Incident and Disaster Response: incident response, laws and regulations, business continuity planning

LANGUAGE OF INSTRUCTION

English

NUMBER OF ECTS CREDITS ALLOCATED

2