



Course name: **Safety of Computer Systems**

Number of hours: 30

Course duration: 1 semester

ECTS: 6

Course description: Introduction to data protection and high availability systems. Students develop skills to configure and deploy tape backup systems, disk arrays and high availability clusters. Topics include overview of data storage technologies, computer benchmarks, high availability systems, RAID, data protection methods, HSM systems, storage area networks.

Learning outcomes: Students will have knowledge about:

- how the high availability systems are designed, build and used,
- the available data protection methods and corresponding storage technologies.

Student will develop skills to:

- create high availability clusters based on Pacemaker software,
- deploy distributed data backup solutions,
- build storage area networks based on iSCSI.

Literature: Evan Marcus, Hal Stern: Blueprints for High Availability 2nd Edition, Wiley, Indianapolis 2003

Mitja Resman: CentOS High Availability, Packt Publishing, 2015

Course type: lectures and lab exercises

Assessment method: oral exam, problem-solving lab exercises

Prerequisites: basic knowledge and skills about administering computer systems

Lecturer: dr inż. Darin Nikolow