

Tárgytematika / Course Description

Digitalization for industry

GKNM_TATA061

Tárgyfelelős neve /

Teacher's name: dr. Lencse Gábor

Félév / Semester: 2021/22/2

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 2/2/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

The goal of the course is to introduce the basic concept of Computer Networks to understand IoT and Industry 4.0 concept. The participant will get familiar with basic Linux command, shell scripts, filesystems, kernels, and usage of an HPC system, or cloud resource.

TANTÁRGY TARTALMA / DESCRIPTION

Tantárgy tematikája, rövid tartalma

- 1.hét
 - Computer Networks basics, IPv4, IPv6
 - Transport protocols, TCP, UDP, RTP
- 2.hét
 - Network Functions (DHCP, DNS, FTP, TFTP)
 - Hálózati topologies, Switching routing, basics
- 3.hét
 - IP and non-IP based interconnects
 - IoT network trends, protocols
- 4.hét
 - Linux basics
 - Directories
 - kernels
- 5.hét
 - basic commands, test operands,
 - compilers,
 - user rights
- 6.hét
 - Shell scripts
 - Regexp
- 7.hét
 - text manipulation tools, (grep, awk, sed, tr)
- 8.hét
 - Virtualization basics
 - CPU, memory, storage, network virtualization basics
- 9.hét
 - Cloud infrastructures

Exam.

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Kötelező irodalom:

- Online elérhető bemutató
- Online elérhető jegyzet

Ajánlott irodalom:

- Computer Networks 5th By Andrew S. Tanenbaum (International Economy Edition), Prentice Hall, ISBN-10: 9332518742 ISBN-13: 978-9332518742
- B. Sosinsky: Cloud Computing Bible, Wiley, ISBN: 9780470903568.
- Virtualization Essentials 1st Edition, Sybex, ISBN-10: 1118176715 ISBN-13: 978-1118176719