**Course Syllabus**

Academic year: 2020-2021

|  |  |
| --- | --- |
| Institution | University of Petroşani |
| Faculty | Mechanical and Electrical Engineering |
| Field of study | Systems Engineering |
| Level | Bachelor |
| Program of study | Automation and Applied Informatics |

|  |  |
| --- | --- |
| Course | **Industrial Computer networks** |
| Code | 2SA7AS51 |
| Year of study (semester) | IV (I) |
| Number of hours | 42 |
| Number of credits | 4 |
| Professor | Lecturer, Ph.D. Riurean Simona |

|  |  |
| --- | --- |
| **No.** | **Topic** |
|  | Networks and Internetworks.The OSI Model  |
|  | Physical Layer, Data Link Layer: ARP, Bridge, CSMA/CD, Virtual LAN  |
|  | Transport Layer and Network Layer: IP, ICMP, Traceroute  |
|  | Session Layer: TCP, UDP, Presentation and Application Layer,  |
|  | IP Addressing and Sub-netting: IPv4, DHCP, IPv6 |
|  | Basic Router Operations and Configuration  |
|  | Network Security: Basic Cryptology, Secure Communication  |