**Course Syllabus**

Academic year: 2020-2021

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

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| 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 |

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| **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 |