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| **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | Faculty of Mechanical Engineering |
| **GENERAL INFORMATION** |
| Study Program | **Manufacturing & Information Technologies** |
| Study Module (if applicable) | - |
| Course Title | Computer systems for control and supervision in production |
| Level of Study | ☐Bachelor | ☒ Master’s | ☐ Doctoral |
| Type of Course | ☒ Obligatory | ☐ Elective |
| Semester | ☐ Autumn | ☒ Spring |
| Year of Study | I |
| Number of ECTS Allocated | 6 |
| Name of Lecturer/Lecturers | Vladislav A. Blagojević |
| Teaching Mode | ☒ Lectures | ☐ Group tutorials | ☐ Individual tutorials |
| ☒ Laboratory work | ☒ Project work | ☒ Seminar |
| ☐ Distance learning | ☐ Blended learning | ☐ Other |
| **Purpose and Overview (max. 5 sentences)** |
| *Introduce students to the basics of analysis and synthesis of digital control and monitoring of production processes and based on the given conditions, according to the established form to design the program for the appropriate type of control.* |
| **Syllabus (brief outline and summary of topics, max. 10 sentences)** |
| 1) General introduction to control and monitoring, 2) Digital system control parts, 3) Number systems and codes, 4) Minimization and realization of logical functions, 5) Digital control system technology, 6) Combinational and sequential machine, 7) Introduction to PLC, 8) Structure and components of PLC, 9) PLC programming, 10) Introduction to SCADA systems, 11) Structure and components of SCADA. |
| **Language of Instruction** |
| ☒Serbian (complete course) | ☒ English (complete course) | ☐ Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course) |
| ☐Serbian with English mentoring | ☐Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **Assessment Methods and Criteria** |
| **Pre exam Duties** | **Points** | **Final Exam** | **Points** |
| **Activity During Lectures** | **10** | **Written Examination** | **25** |
| **Practical Teaching** | **10** | **Oral Examination** | **25** |
| **Teaching Colloquia** | **30** | **Overall Sum** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |