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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Electronic Engineering |
| **GENERAL INFORMATION** |
| Study program  | Electrical Engineering and Computing |
| Study Module (if applicable) | Electronics |
| Course title | System-on-Chip Design |
| Level of study | [ ] Bachelor [ ]  Master’s [x]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | 2 |
| Number of ECTS allocated | 10 |
| Name of lecturer/lecturers | Petković M. Predrag |
| Teaching mode |  [ ] Lectures [x] Group tutorials [x]  Individual tutorials [ ] Laboratory work [x]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| The aim is to provide students with systematized knowledge for system on chip design based on industrial standard design tools. Students will be competent for System on Chip (system on chip) design with deep knowledge about problems characteristic for system on chip design. Students will learn how to use one of industrial standard tools for system on chip design. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Classification of electronic systems. Industrial applications of system on chip. System on chip design specification. Data flow within system on chip. Signal integrity within system on chip. Effects of long interconnections. Design methodologies mixing within system on chip. Hierarchical design levels. IP cores. Functional verification. Physical verification. Students have to do a project or publish a paper. |
| **LANGUAGE OF INSTRUCTION** |
| [x] Serbian (complete course) [x]  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** |  | **Written examination** |  |
| **Practical teaching** | **50** | **Oral examination** | **50** |
| **Teaching colloquia** |  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |