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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Electronic Engineering |
| **GENERAL INFORMATION** |
| Study program  | **Electrical Engineering and Computing** |
| Study Module (if applicable) | Electronics |
| Course title | Digital Image Processing |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | 3 |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Nikolić V. Saša, Cvetković S. Stevica |
| Teaching mode |  [x] Lectures [x] Group tutorials [ ]  Individual tutorials [x] Laboratory work [x]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Present the basic algorithms for digital image processing: image enhancement, sharpening, filtering, segmentation, etc. Present the mathematical knowledge for operation in digital image processing. Software implementation of presented algorithms in Matlab.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Components of the image processing system. Photometry, acquisition and digitalization of the image. Image enhancement in the spatial domain. Image enhancement in the frequency domain. Image restoration. Colour image processing. Morphological image processing. Image segmentation. Exercises on the computer in MATLAB. Practical implementation of the program of digital image processing algorithms that are presented in class.** |
| **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** | **5** | **Written examination** | **30** |
| **Practical teaching** | **15** | **Oral examination** | **30** |
| **Teaching colloquia** | **20** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |