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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) | Telecommunications |
| Course title | Acoustics |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [x]  Obligatory [ ]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | 3 |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Ćirić G. Dejan, Nikolić R. Jelena |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [x] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [x]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Acquiring basic theoretical and practical knowledge about sound, its generation and transmission, sound sources, transducers, room acoustics, acoustic signals, sound perception and its consequences.Theoretical knowledge in the field of sound; Application of theoretical knowledge in analysis, modelling and design of acoustical systems and systems containing acoustic components, acoustic design and sound insulation. Adequate usage of acoustic components and equipment. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Sound as a phenomenon. Characteristics of sound field. Sound waveguides. Plane and spherical waves. Sound sources. Electro-acoustic transducers (microphones, headphones and loudspeakers)-construction, working principles and characteristics. Analogies. Room acoustics (wave, statistical, and geometrical theory). Physiological acoustics (auditory system function). Psychological acoustics (subjective effects of sound). Generation and characteristics of speech and musical signals. Noise. Recording, storage and reproduction of audio signals. Acoustic and audio signal processing.** |
| **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** | **25** |
| **Practical teaching** | **20** | **Oral examination** | **25** |
| **Teaching colloquia** | **25** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |