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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 - Radiocommunication Engineering and Technologies |
| Course title | Audio and Video Technique |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [ ]  Autumn [x] Spring |
| Year of study  | 4 |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Ćirić G. Dejan, Jovanović Ž. Aleksandra, Joković J. Jugoslav |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [x] Laboratory work [x]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Introduction to techniques and standards of generating, processing and transmission of audio and video signals in communication systems. Acquiring basic theoretical and practical knowledge about audio and video systems.Acquiring knowledge necessary for analysis of production, transmission and processing of audio and video signals in communication systems. Adequate usage of audio and video equipment. Skills in sound recording and system design. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Basic concepts of audio technique. Audio signals and systems. Sound field as an audio system input. Auditory system an audio system output. Perceptive effects of sound. Audio devices. Studio audio equipment. Microphone concept. 3D sound. Audio signal processing. Sound reproduction. Audio compression and standards. Video - basic concepts, motion analysis, spatial, time and subjective redundancy, video formats and conversion, scalability, standards of video compression, error control in video communications. Concept of TV center, studio and production equipment. Audio-video synchronization. Mixers of audio and video signals. Digital interfaces. |
| **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** |