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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Electrical Engineering |
| **GENERAL INFORMATION** |
| Study program  | Telecommunications |
| Study Module (if applicable) | Radiocommunication engineering and technologies |
| Course title | Radar Systems and Radiolocations |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | 5 |
| Number of ECTS allocated | 4 |
| Name of lecturer/lecturers | Pronić-Rančić R. Olivera, Maleš-Ilić P. Nataša |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [ ] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Knowledge of the basic principles of the theory of radar systems and radiolocation.Knowledge of technical solutions applied in modern radar systemsKnowledge of technical specifics of SAR, weather and military radar. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| The basic principles of radiolocation and radar arhitecture. Classification and application of modern radar systems. The radar equation. RCS. MTI and pulse Doppler radar. Detection of radar signals in noise. Processing of radar signals. Extraction of radar information. Radar clutter. Other types of radar: SAR radars, weather radars, military radar systems. Radar equipment (transmitters, receivers, antennas). Problem solving in different areas covered by theoretical teaching. |
| **LANGUAGE OF INSTRUCTION** |
| [ ] 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** | **30** |
| **Practical teaching** | **40** | **Oral examination** | **30** |
| **Teaching colloquia** |  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |