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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | **Faculty of Electronic Engineering of Niš** |
| **GENERAL INFORMATION** |
| Study program  | Electrical Power Engineering |
| Study Module (if applicable) |  |
| Course title | Lightning Protection |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | I |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Javor L. Vesna |
| Teaching mode |  [x] Lectures [x] Group tutorials [ ]  Individual tutorials [ ] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Introduction to problems of lightning protection for power systems, equipment, devices and objects. Overview of the relevant standards. Computation methods for analysis of transients in power systems. Gaining ability to assess various problems of lightning protection. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| The processes of a lightning discharge. Characteristics and parameters of lightning currents. Systems for the detection of lightning. Modeling of lightning discharge. Direct and indirect lightning discharges. Mechanical and thermal effects of lightning discharges. Breakdown of insulation and surge protection of insulation. Surge arresters. Lightning protection. Protection zones. External and internal lightning protection installation of the facilities. Grounding resistance. Lightning protection of power system elements.  |
| **LANGUAGE OF INSTRUCTION** |
| [x] Serbian (complete course) [x]  English (complete course) [ ]  Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)[x] Serbian with English mentoring [ ] Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **10** | **Written examination** | **20** |
| **Practical teaching** | **10** | **Oral examination** | **20** |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |