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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 | Electromagnetic Compatibility in Power Engineering |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [ ]  Autumn [x] 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 electromagnetic compatibility (EMC). Overview of EMC laboratory equipment and measurements, relevant standards and EMC Directive. Learning principles of EMC design for systems, circuits and equipment, methods and measures to comply with EMC requirements. Gaining ability to assess EMC issues in power engineering. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Natural and artificial sources of electromagnetic interference. EMC Directive and standards. Design of circuits and devices in accordance with EMC requirements. Radiated emissions and conducted emissions. The principles and techniques of EMC design. Selection of configurations and components. Shielding, grounding, and filtering techniques, cables routing and choice of connectors, contact protection. Protective measures for limitting currents and reducing harmonics in order to improve power quality. Electrostatic discharge (ESD) and practical ways of solving ESD problems. Other EM disturbances in power systems and interference with systems of communication and information technology. |
| **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** |