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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) | Electrical Power Engineering |
| Course title | Power Quality |
| Level of study | ☒Bachelor ☐ Master’s ☐ Doctoral |
| Type of course | ☐ Obligatory☒ Elective |
| Semester  | ☒ Autumn ☐Spring |
| Year of study  | 3rd |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Korunović M. Lidija |
| Teaching mode | ☒Lectures ☒Group tutorials ☐ Individual tutorials☒Laboratory work ☒ Project work ☐ Seminar☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Introduce the importance of power quality and basic terms in this area to the students. Introduce causes and effects of disrupted power quality to students. Introduce actions for maintenance of desired power quality and existent standards in this area.Students will understand the term power quality. They will be enabled to measure power quality indices by themselves in the laboratory and in the field. Additionally, students will be enabled to calculate and analyse these indices in accordance with existing standards and suggest the procedures for power quality improvement in electric power networks.  |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Power quality in up to date electric power systems. Power quality indices: voltage variations, frequency variations, unbalance, transients, voltage sags, swells, short interruptions, overvoltages, undervoltages, interruptions, harmonics, interharmonics, notches, flicker and noise. The influence of dispersed generators on power quality. Damages due to disrupted power quality. Actions for maintenance of desired power quality. Standards regarding power quality.During group tutorials students solve computational tasks regarding theoretical matter. Laboratory work comprehends measuring of power quality indices and performing computer simulations. |
| **LANGUAGE OF INSTRUCTION** |
| ☒Serbian (complete course) ☐ 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** | **20** |
| **Practical teaching** |  | **Oral examination** | **10** |
| **Teaching colloquia** | **70** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |