Course Unit Descriptor

Study Programme: Engineering Management
Course Unit Title: Intelligent Systems for Decision Support
Course Unit Code: IM1117
Name of Lecturer(s): Aleksandar Rikalović
Type and Level of Studies: bachelor
Course Status (compulsory/elective): elective
Semester (winter/ summer): winter
Language of instruction: english
Mode of course unit delivery (face-to-face/distance learning): face-to-face
Number of ECTS Allocated: 4
Prerequisites: none
Course Aims:. The objective of the course is to master the basic knowledge in the field of intelligent decision support systems that enable the student to independently carry out engineering analysis of the data when predicting and deciding. The objective of the course is that B.Sc. in Industrial Engineering and Management acquires competencies for the application of advance statistics and computer intelligence techniques in the problems of forecasting and decision making in production and service systems.
Learning Outcomes: Students will be capable for research and development of intelligent decision support systems in order to predict events for the purpose of improving system performance. B.Sc. in Engineering and Management acquires competencies for the development and application of intelligent systems in forecasting and decision-making.
Syllabus. Introduction. Computer support for decision making. Decision support systems. Spatial systems for decision support. Intelligent decision support systems. How to computers think more like humans? Fuzzy inference systems. Hybrid Intelligent Systems. Recommender, Advisory and Expert Systems and Their Integration with Decision Support Systems. Successful and unsuccessful examples of intelligent decision support systems. Benefits from intelligent decision support systems.
Required Reading: Relevant literature in English, tbd

Weekly Contact Hours:2	**Lectures: 2**	**Practical work: 0**

Teaching Methods: Teaching on the course includes lectures and exercises with examples of intelligent decision support systems. During the semester the student is obliged to do a project where he will apply the acquired knowledge in the field of intelligent decision support systems. The entire exercise takes place with the help of computers and sophisticated software.
Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Attendance			
Computer exercises			
Tests (4x)			