Course title: Fuzzy Systems

Lecturer(s): Ivana Štajner-Papuga

Status: (obligatory/elective) elective

ECTS: 7

Requirements: none

Learning objectives

Introduction to the theory of fuzzy sets and systems and its role in modeling of fuzzy data. Acquiring fundamental knowledge in fuzzy statistical analysis and estimation.

Learning outcome

A successful student will be able to make a critical assessment of a given problem and apply methods of fuzzy statistics.

Syllabus

Triangular norms, fuzzy sets, fuzzy numbers, fuzzy relations, fuzzy arithmetic (α-cuts, extension principle), fuzzy random sets, fuzzy statistical analysis and estimation, tests of hypothesis, applications

Recommended literature

H. T. Nguyen, B. Wu, Fundamentals of Statistics with Fuzzy Data, Springer, 2006.

H. Michael, Applied fuzzy Arithmetic – an introduction with engineering applications, Springer, 2005.

K. E. Peter, P. Mesiap, E. Pap, Triangular norms, Kluwer Academic Publishers, 2000.

E. Pap, Fazi mere i njihova primena, Univerzitet u Novom Sadu, PMF Novi Sad,1999.

Weekly teaching load	Lectures: 3	Student research:

Teaching methodology

Grading method (maximal number of points 100)

term paper 60 points, exam 40 points