MODELING OF ENVIRONMENTAL AND MEDICAL SYSTEMS BY THE USE OF INTELLIGENT DATA ANALYSIS

Course of lectures to be presented at Department of Analytical Chemistry, Faculty of Chemistry, Gdansk University of Technology

Duration of the course: 15 academic hours

Term of presentation: May 5 – May9, 2014

Lecturer: Prof. Dr. Vasil Simeonov, DSc

Affiliation: Laboratory of Chemometrics and Environmetrics, Chair of Analytical Chemistry, Faculty of Chemistry and Pharmacy, University of Sofia "St. Kl. Okhridski"

Abstract. The aim of the course of lecture is to introduce various methods of intelligent data analysis (stressing on multivariate statistical approaches like cluster analysis, principal components analysis, principal components regression, N-way principal components analysis, self-organizing maps of Kohonen, Hasse diagram technique etc) as a tool for classification, modeling and interpretation og larga data sets from environmental systems monitoring or from clinical analysis of patients in different health status. Examples will be interpreted from modeling of surface waters (rivers, lakes, pot water), air (dry precipitation data), soils and sediments, benthic organisms and other bioindicators (mosses, snails) clinical studies (e.g. patients with diabetis melitis type 2, patients subject to parenteral feeding after surgery etc). The data interpretation receives a new information levels and helps in problem solving , risk assessment and decision making in environmental and medical issues.

Termin	Dzień tygodnia	Godzina	Miejsce
05.05.2014	**Poniedziałek**	**9.15 – 12.00**	**LUWR**
06.05.2014	**Wtorek**	**9.15 – 12.00**	**LUWR**
07.05.2014	**Środa**	**9.15 – 12.00**	**LUWR**
08.05.2014	**Czwartek**	**9.15 – 12.00**	**LUWR**
09.05.2014	**Piątek**	**9.15 – 12.00**	**LUWR**