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EVROPSKÁ UNIE



MINISTERSTVO ŠKOLSTVÍ,
MLÁDEŽE A TĚLOVÝCHOVY



OP Vzdělávání
pro konkurenceschopnost



Slezská univerzita v Opavě

INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Interdisciplinární vzdělávání v ICT s jazykovou kompetencí

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pořádá přednášku

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Fuzzy Cognitive Maps: Concepts, Design, and Generalizations

and

Granular and Linguistic Models of Time Series and Spatiotemporal Series Analysis

Cognitive maps and fuzzy cognitive maps form an interesting category of graph-based models capturing essential relationships among concepts and variables present in a given problem.

In this talk, we discuss various topologies, elaborate on the functioning of the maps and present their underlying design process. With respect to the design process, its key phases are presented in depth: (i) identification of concepts forming the nodes of the map. Here it becomes crucial to realize a sound transformation of numeric data into a collection of concepts (abstract entities), and (ii) learning processes of fuzzy cognitive maps; both unsupervised and supervised learning mechanisms are considered and thoroughly assessed.

Along with the generic versions of fuzzy cognitive maps, we investigate hierarchical topologies of the maps. We also look at an important generalization coming in the form of granular fuzzy cognitive maps whose connections are information granules.

A suite of applied studies is focused on the use of fuzzy cognitive maps in modeling of time series.

Kdy: 16.12.2014, 14:00

Kde: Zasedací místnost děkanátu Bezručovo náměstí 13, 1. patro.