Generalized Rough Sets Applied to Graphs Related to Urban Problems

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Abstract : Branch of modern mathematics, graphs represent instruments for optimization and solving practical applications in various fields such as economic networks, engineering, network optimization, the geometry of social action, generally, complex systems including contemporary urban problems (path or transport efficiencies, biourbanism, & c.). In this paper is studied the interconnection of some urban network, which can lead to a simulation problem of a digraph through another digraph. The simulation is made univoc or more general multivoc. The concepts of fragment and atom are very useful in the study of connectivity in the digraph that is simulation - including an alternative evaluation of k- connectivity. Rough set approach in (bi)digraph which is proposed in premier in this paper contribute to improved significantly the evaluation of k-connectivity. This rough set approach is based on generalized rough sets - basic facts are presented in this paper.

Keywords : (bi)digraphs, rough set theory, systems of interacting agents, complex systems
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