

Logic-based approaches to information and knowledge fusion

(Tutorial proposal for Fusion'2008)

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Keywords

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Objective of the tutorial and target audience

The objective of this tutorial is to help Information Fusion 2008 attendees to understand and assess the current state or research about logic-based approaches to information and knowledge fusion. There are no specific prerequisites for this tutorial.

Abstract

The objective of this tutorial is to help Information Fusion 2007 attendees to understand and assess the current state of research about logic-based approaches to information and knowledge fusion. There are no specific prerequisites for this tutorial.

The focus is on qualitative approaches to fuse decision-making knowledge and beliefs. Both syntax-based and semantic-oriented families of techniques are presented. The major concern of handling inconsistency in logic-based knowledge fusion is addressed. Other important issues that are covered concern the rationality analysis of the fusion operators, the fusion of decision rules and the handling of logically weaker but more informative pieces of knowledge.

Biography

É. Grégoire holds a Master of Science of Engineering in Computing Science (1984) and a Ph.D. (1989) from the University of Louvain in Belgium. He was there awarded the IBM Belgium Prize for the best Ph.D. thesis. He spent one year at the University of Maryland Institute for Advanced Computer Studies (UMIACS) before joining IRISA-INRIA in Rennes in France and holding a permanent senior CNRS position at LORIA in Nancy. Since 1993, *É. Grégoire* has been a full professor at the Université d'Artois at Lens in France. He is the founding-director of CRIL CNRS, a 50-strong members research laboratory focusing on computer-based knowledge representation and reasoning issues. *É. Grégoire* has also been an Adjunct Scientific Director in charge of the computing science domain at the French Research Ministry. He has published more than 100 referred papers, many of them about information and knowledge fusion. He has served on various program committees about knowledge fusion. As a member of the editorial board of the Information Fusion Journal, he co-edited a special issue on « Logic-based information and knowledge fusion » in 2006.