Decision Making in Uncertain Situations: An Extension to the Mathematical Theory of Evidence (Paperback)

By Fabio Campos

DISSERTATION.COM, United States, 2006. Paperback. Condition: New. Language: English . Brand New Book ***** Print on Demand *****.The main problem addressed by this work is how to model and combine bodies of knowledge (or evidence) while maintaining the representation of the unkowledge and of the conflict among the bodies. This is a problem with far-reaching applications in many knowledge segments, in particular for the fields of artificial intelligence, product design, decision making, knowledge engineering and uncertain probability. It must be kept in mind that knowledge based systems depend on algorithms able to relate the inputs of a system to a correct answer coming out of the knowledge-base, and both the inputs and the knowledge-base are subject to information imperfections caused by the unknowledge and the conflict. There are several formalism to deal with knowledge representation and combination, among them the Mathematical Theory of Evidence or Dempster-Shafer Theory. This work extends the Mathematical Theory of Evidence through the adoption of a new rule for the combination of evidence and a companion set of concepts. This extension solves the counter-intuitive problems illustrated in the original theory, extends its power of expression and allows the representation of uncertainty in the results. The representation...

Reviews

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This book is great. it absolutely was writtern really perfectly and beneficial. You may like how the blogger compose this book.
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