

论文

基于可信度的证据融合方法

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摘要:

为了有效融合高度冲突的证据,在总结邓勇方法的基础上提出了基于预处理模式的改进方法,结合模糊集合理论的贴近度概念给出相似性测度的定义,进一步获得系统中各条证据被其它证据所支持的程度,将该支持度作为证据的权重,对多源证据进行加权平均后再利用Dempster组合规则融合证据信息.数值实验与仿真分析表明,新方法在系统存在伪证据(干扰)时仍然能够有效快速地识别出目标

关键词: 冲突证据; 可信度; Dempster组合规则; 信息融合

Evidence Fusion Method Based on Reliability

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Abstract:

In order to efficiently combine highly conflicting evidences,a new improved method of pretreatment mode was proposed based on the summary of the Deng Yong' s method.This method had three steps.At first, the concept of the similarity measure based on fuzzy set theory was given,and then the support degree and the credibility of evidences were obtained.Finally,weighted averaging the evidence in the system,the Dempster combination rule was used to realize information fusion.Experiment and simulation analysis indicate that the proposed approach is more efficient in combining conflict evidence.

Keywords: conflict evidence; reliability; the Dempster combination rule; information fusion

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