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研究課題名（和文）分散型ルールベースシステムにおける処理割り当て方式

研究課題名（英文）A Process Assignment Method in Distributed Rule-Based Systems

研究代表者

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研究成果の概要（和文）：本事業では、分散型ルールベースシステムにおけるルール処理および処理結果のより細かい割り当て方式を提案し、構築技術の確立を目的とする。分散型ルールベースシステムにおける想定環境や問題設定をモデル化し、処理割り当て方式について対外発表を行った。また、ルールベースシステムにおいて重要なセンサデータの収集や管理、処理の分散手法を確立し、多くの学術論文誌や国際会議、国内研究会などで成果を発表した。

研究成果の学術的意義や社会的意義

ルール処理効率化のためのアルゴリズムを分散環境に適用し、ルール処理やセンサデータ収集頻度を削減しつつ、複数コンピュータによる負荷分散を図る。提案するルール処理割り当て方式により、分散型ルールベースシステムにおける特定の処理コンピュータへの負荷集中を回避できる。本研究により、インターネットおよび広域なセンサデータを用いた大規模ルールベースシステムが実現できる。

研究成果の概要（英文）：This research aims to propose a process assignment method in distributed rule-based systems and establish its construction technique. I modeled the assumed environment and problems in distributed rule-based systems, and I made presentations about the proposed process assignment method. In addition, also I proposed distributed methods to collect, manage, and process sensor data which perform an important role in rule-based systems. The contributions in this research were presented in many academic journals, international conferences, domestic symposiums, and so on. The presentations contain technical demonstrations.

研究分野：分散コンピューティング

キーワード：エネルギー効率化 分散処理 センサデータ ルールベースシステム Reteアルゴリズム

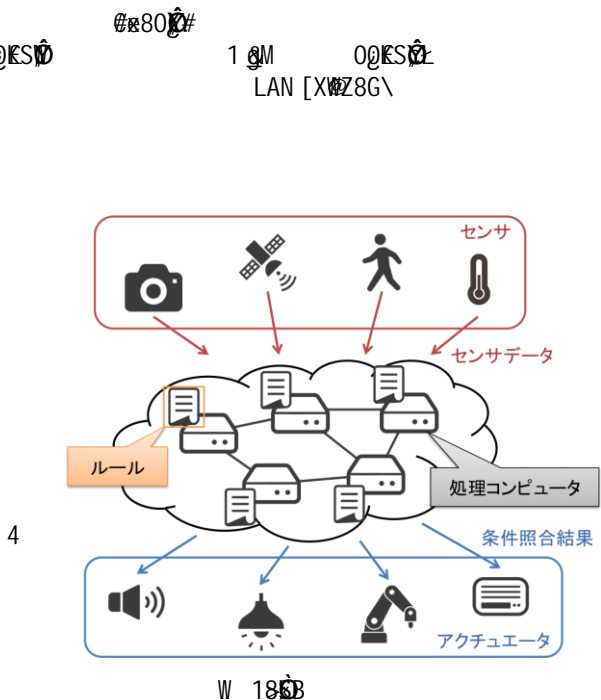
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