

An Intelligent Care System for the Aged having Gentle Functions to Environment

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2001 Fiscal Year Final Research Report Summary

An Intelligent Care System for the Aged having Gentle Functions to Environment

Research Project

Project/Area Number

12680409

Research Category

Grant-in-Aid for Scientific Research (C)

Allocation Type

Single-year Grants

Section

一般

Research Field

情報システム学(含情報図書館学)

Research Institution

Kanagawa University

Principal Investigator

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Project Period (FY)

2000 – 2001

Keywords

Sensor Agent / Odor Sensor / Gas Sensor / Genetic Algorithm / Recognition of Human Activities

Research Abstract

In this research, we executed the foundation of research of the Intelligent Care System for the Aged having Gentle Functions to Environment. The results are as follows.

- Recognition of Human Activities by Gas Sensor Response Using Genetic Algorithm.
- Feature Extraction of Multi-Gas Sensor Responses Using Genetic Algorithm.
- Characteristics of Tin Oxide Gas Sensors for Human Vital Signs during Sleep.
- Prediction of Comfortable Index Using Membership Function on Gas Sensor Characteristics.
- Gas-Generating Events Estimation by Means of Remote Sensing and Cepstrum Processing in an Indoor Space.
- Proposition of Sensor Agent for Estimation of Air-Pollution Direction and its Experimental Simulation.
- Extraction of Information of Driving-State from a Gas Sensor Response by Genetic Algorithm.
- Influence of Indoor Thermal Indexes to a Tin Oxide Gas Sensor Output and prediction of its Output.

Research Products (72 results)

		All	Other
All	Publications		
[Publications]	林貴宏, 木村春彦, 大藪多可志: "遺伝的アルゴリズムを用いたガスセンサ観測信号からの人間の活動検知"電子情報通信学会論文誌A. Vol.J83-A, no.4. 412-422 (2000)		▼
[Publications]	T.Nishikawa, T.Hayashi, H.Nambo: "Feature Extranction of Multi Gas Sensor Responses Using Genetic Algorithm"Sensors and Actuators, B. Vol.64, no.1. 2-7 (2000)		▼
[Publications]	T.Oyabu, T.Onodera, H.Kimura, T.Katsube: "Characteristics of Tin Oxide Gas Sensor for Human Vital Signs during Sleep"Sensors and Materials. Vol.12, no.1. 25-34 (2000)		▼
[Publications]	Y.Nakamoto, T.Oyabu, H.Kimura: "Prediction of Comfortable Index Using Membership Function on Gas Sensor Characteristics"Proceedings, 4th International Conference on Engineering Design and Automation. 888-891 (2000)		▼
[Publications]	T.Oyabu, T.Misawa, H.Kimura, H.Nanto: "Proposition of Sensor Agent for Estimation of Air-Pollution Direction and Its Expreimental Simulation"Materials Science & Engineering Biomimetic Materials, Sensor and Systems. C12. 89-95 (2000)		▼
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[Publications]	参沢匡将, 木村春彦: "強化学習型マルチエージェントによる交通信号制御"電子情報通信学科論文誌D-II. Vol.J83-D-II, no.5. 478-486 (2000)		▼
[Publications]	Y.Ogoshi, T.Misawa, H.Kimura: "Recognition of Human Activities Using Sensor-Agent System"The Third Asia-Pacific Conference on Industrial Engineering and Management Systems. 214-218 (2000)		▼
[Publications]	T.Abe, T.Hirayama, H.Kimura: "Research of the Support System to Identify Face Using Simulated Breeding"The Third Asia-Pacific Conference on Industrial Engineering and Management Systems. 633-636 (2000)		▼
[Publications]	H.Nanbu, Y.Ueda, H.Kimura: "Document Classifying Based on Association Rules"The Third Asia-Pacific Conference on Industrial Engineering and Management Systems. 466-470 (2000)		▼
[Publications]	T.Hayashi, H.Kimura: "Applying Genetic Algorithm to Supporting Systems for Concept Understanding Using www"The Third Asia-Pacific Conference on Industrial Engineering and Management Systems. 233-237 (2000)		▼
[Publications]	伊之井清孝, 前川貴宏, 木村春彦: "プロダクションシステムにおける動的特性のペリフィケーション"人工知能学会論文誌. 16巻1号. 1-10 (2001)		▼
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[Publications]	T.Hayashi, H.Kimura: "A Control Method for Genetic Algorithms Under Changing Environments"The 5th International Conference on Engineering Design. 1104-1109 (2001)		▼
[Publications]	M.Koshino, H.Kimura: "Performance Evaluation of three Systems on Near-Optimal Solution Methods of Cast-based Abduction"The 5th International Conference on Engineering Design. 1092-1097 (2001)		▼
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