D-07

The Proposal of Truck driver's Support System using Purpose Oriented System

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Abstract

The purpose of this research is proposing the system which does information support as for a truck driver, and verifying the validity.

First, it investigated by visiting the Transport Company and interview for the present situation and the opinion on computerization from the operation administrator and truck drivers. Consequently, the problem of computerization could be found out to the present system. Next, the present system was considered. As for present machine system, human's "Choosing a function" starts processing. Then this system is called "Function-Oriented-System". And three problems were extracted from this system. As a solution of those problems, the Purpose-Oriented-System was proposed. In order to attain user's purpose, Agent that situation is perceived and works a function autonomously assumed that this system was inherent. 3D-Sceanrio-Expression was proposed as the description method of the task process. It consists of "Machine and Functional-Item axis", "Time axis", and "Situation-Item axis". And, the task execution process of Function-Oriented-System and Purpose-Oriented-System was compared using 3D-Sceanrio-Expression supposing the scene of truck business. As a result, the following two things could be found out.

(1) The concept of Purpose-Oriented-System that Agent is inherent is effective as situation correspondence machine.

(2) A solid scenario can express the interaction that cannot be seen, in the relation of the conventional Human and Machine.

Keywords

Truck, Agent, Interface, Scenario

D-08

A Study on Product Design Using Aesthetic Response Factors

Research Cases Through TV Design

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Abstract

This research aims at establishing process, which can satisfy the consumers' aesthetic desires in product design by developing the evaluation standard which can measure the aesthetic dimension of product design affecting the consumers' evaluation and response of product. For these goals, this study develops the aesthetic measures which can evaluate the degree of consumers' cognition of aesthetic dimension in a specific product group, analyzes what aesthetic dimension of product design is related to design product. Such a measure was developed on the basis of historical relativism. To achieve the research goals, this study is developed with such stages as theoretical investigation, developing standard for measuring the aesthetic dimension, establishing research model and positive analysis. First, aesthetic literature related to product design, dimension for aesthetic evaluation of product design, measure of standard for measuring aesthetic dimension and literature of consumers' response of product design are investigated. Second, the aesthetic measure , which can measure the degree of consumers' cognition of aesthetic dimension in a specific product group, is developed. Third, the model for the purpose of research is established, the factors of establishing the model are defined and the relation among factors is established. Fourth, the positive analysis is conducted to extract the results of research model established as the stage of positive analysis and verify its validity. It conducts the cluster analysis with the standard variables of affirmative response for the classification based on the degree of affirmative response of case product TV as the analysis method and the factor analysis of aesthetic factors is conducted in order to remove the interaction effects among measured factors of product aesthetics for the regressive analysis to confirm what aesthetic factors affect the consumers' responses. And mean analysis is performed to grasp the relation between consumers' affirmative response and each aesthetic factor. Finally the commonality of design within affirmative response cluster by means of the results of cluster analysis with the standard variable of affirmative response is inferred in order to extract other design factors. The range of research is confined to the aesthetic dimension of product design and consumers' emotional response and doesn't consider the variables affecting the consumers' responses. Also it doesn't consider the interaction between other design factors and aesthetic dimension.

Keywords

Aesthetic, Proportion, Prototype