URN etd-0407109-183703-137
Author Chen-Yang Chuang
Author's Email Address No Public.
Statistics This thesis had been viewed 51 times. Download 21 times.
Department
Year 2006
Semester 1
Degree Master
Type of Document Master's Thesis
Language zh-TW.Big5 Chinese
Title Approaches to Interaction Functions of Intelligent Reception Service Robots
Date of Defense 0000-00-00
Page Count 78
Keyword
Robots
ANFIS
adaptive Neuro-Fuzzy inference system

Abstract
The thesis proposes a complete design and implementation of an intelligent reception service robot (IRSR) which consists of mechanism, motion control system, visual and acoustic sensing system, power system, interaction interface, and speech recognition and anaysis system. Since the appearance and functions of a robot will affect users' desire to cotton to and/or to operate it, how to make a suitable visual design and interactive displays of the robot is the first task. Moreover, as we known, natural language is the most important medium for communication in human life. Hence, this thesis proposes a human-robot dialogic system based on an adaptive Neuro-Fuzzy inference system which allows people to talk with the robot in natural language. The dialogic system firstly performs sentence breaks and analyses for natural speech, which separates a sentence into few categories, and these are then used to be the inputs of the adaptive Neuro-Fuzzy inference system. After inferring and learning of the system, the nearest meanings of words will be concluded finally by comparing the keywords with those in the vocabulary and semantic database. As the simulation and experimental results shown, the proposed robot really can provide satisfactory reception services.
Advisory Committee Ming-Yuan Shieh - advisor

Files etd-0407109-183703-137-001.pdf

indicate access worldwide
Date of Submission 2007-08-14