人证识别和人脸识别系统设计与实现

摘　要

人脸识别应用技术人脸是目前包括手机人脸指纹检测识别技术和手机人脸识别身份信息认证等等技术应用在内的一种识别应用技术。人脸信息检测成像技术主要是根据所采集获得的数字视频或者数字图片图像信息，利用视频图像信号处理和结合计算机数字视觉中的图像分析算法，从视频图像中自动判断物体是否有人脸，并实时给出可能存在类似人脸的物体数量和所在位置；人脸真实身份识别认证法该技术主要是通过人物脸与人和脸的信息匹配技术识别认证人物和脸的真实身份。随着身份管理系统和信用卡身份验证系统在市场上的广泛应用，个人身份识别已在医疗、文件管理、视频会议、人机交互、系统和公共安全（近代）领域变得越来越流行。它已成为图像识别应用程序和其他人工智能应用程序中的重要研发中心。论文深入研究了自动人脸识别的技术基本原理和应用算法，分析了自动人脸识别系统的技术需求，设计了自动人脸识别系统的技术总体结构框架和主要技术功能模块，包括人脸图像信息获取识别功能、图像预览和处理识别功能、人脸自动跟踪图像定位识别功能和自动人脸识别等。本文根据图 amatlab 等对图像进行处理，设计并自动实现了一个自动人脸识别系统软件管理系统,并通过结合已有的自动人脸识别数据库，对系统性能进行了一次实验分析仿真，实验分析结果表明本文精心设计的一个人脸识别软件系统性能是稳定的,并同时具有良好的自动人脸识别分辨率。

关键词：人脸识别；人证识别；视觉图像算法

Abstract

Face recognition technology includes face detection technology and face identification technology. Face detection technology is based on the obtained video or picture information, the use of image processing and computer vision image algorithm, from the image to determine whether there is a face, and given the number and location of the face; Face authentication technology is to recognize face identity through face - to - face matching. Facial recognition has become a hotspot in image recognition and research with artificial intelligence due to its broad application perspectives in verification systems. Security, credit card verification, medical treatment, document management, video communications, human-computer interaction, public security system) [criminal identification]. (A) Capacity building at national level. This article examines the basic principles and algorithms used to identify people and analyzes the needs of the person identification system. In addition, the overall structure and the main functional modules of the personal identification system will be developed. including image acquisition function, image preprocessing function, face tracking and positioning function and face recognition, etc. In accordance with the EHMM face identification algorithm, a face recognition system was developed and implemented. An experimental simulation of the system was carried out in combination with the existing face database. The test results showed that the face recognition system developed in this document is stable and has a good recognition rate. People.

Keywords:Face recognition; Identification of witnesses; Visual image algorithm