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Improving Communication Ability of the Disabled——Chinese Sign Language Recognition and Translation System

Teaching System Based on the Augmented Reality and Atom

Surface Electromyography Detection and Training System

Intelligent System of Inertial Navigation Using QR—codes　InSINQ

An Intelligent Family Health Monitoring System Based on Atom Platform

A Novel PowerPoint Auxiliary Equipment

Wearable Touch Based Human—Computer Interactive System

Sweet Memories of My Childhood——Sugar Painting Robot

AdSkip　A commercial detection technology based on

Intel Atom and Altera Arria II GX FPGA

Internet on The Tongue　Atom on Taste Buds——Intelligent Interactive Restaurant Management System Based on Internet of Things

Attractions and Monuments Touring System Based on Google Earth

Guitar Robot

Driver Assistance System Based on Imaging SensorImproving Communication Ability of the Disabled——Chinese Sign Language Recognition and Translation System　Teaching System Based on the Augmented Reality and Atom　Surface Electromyography Detection and Training System　Intelligent System of Inertial Navigation Using QR—codes　InSINQ　　An Intelligent Family Health Monitoring System Based on Atom Platform　A Novel PowerPoint Auxiliary Equipment　Wearable Touch Based Human—Computer Interactive System　Sweet Memories of My Childhood——Sugar Painting Robot　AdSkip　A commercial detection technology based on　Intel Atom and Altera Arria II GX FPGA　Internet on The Tongue　Atom on Taste Buds——Intelligent Interactive Restaurant Management System Based on Internet of Things Attractions and Monuments Touring System Based on Google Earth　Guitar Robot　Driver Assistance System Based on Imaging Sensor　Facial Sketching with a Multi—Joint Robot Arm

Intelligent Trash Can Separator　Inorganic Trash　　Video Perception and 3D Visualization of Traffic Conditon　Design and Implementation of Foot Legged Lower Limb　Rehabilitation Robot Control System　Embedded Image Processing——3D Camera　Freely 3D on the NIB Atom SmartEye—Intellectual Access Manager　Autonomous Control and Advanced Traffic Surveillance　Garbage Sorting Robot　Supermarket Self—service Shopping System Based on Artificial Intelligence——　Follow Me　Sign Language Translator System for Deaf—mute Person　Powerful Atom—Hand　"Robot7"Intelligent Toy Robot　Triphibious Monitoring Platform Based on Intel Atom Platform　The Design on the Fingertips——The Interior Design Tour System　Based on Intel Atom Platform

The resulting accuracy is lower than before so with parameter selected we can get higher accuracy.LIBSVM provides a tool to compute them,so we can use the library to get the desirable result.

6 Conclusion

The deaf and the mute have difficulties in communicating with healthy people who don't know sign language.On the other hand,deaf children have learning disabilities.Our system aims to enhance these situations by real-time translating sign language into text or sound with Kinect.We can develop more interesting games to enhance deafchildren's learning abilities.We hope that our system will be able to encourage people to learn more sign language.

(Faculty Mentor: Xu Qiang

Participating institutions: The Chinese University of Hong Kong)

Comments:

The target System uses Intel ATOM platform and Microsoft Kinect as two main parts to compose ofa system which can be used to detect and translate the sign language by disabled people to Chinese words/Sounds.

The system use SVM to_enhance the accuracy ofgestures reorganization,it can distinguish 48 kinds of sign language.

With multi-threaded programing technologies integrated in the project.The application runs in high efficacy.

The demonstration process is clear and success.

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