面向声音监测的多媒体传感器节点硬件设计与实现

作　者：徐志生1，孙玉砚2，李立群2，3，孙利民2

单　位：1.武汉理工大学信息工程学院，湖北武汉 430070 2.中国科学院软件研究所信息安全国家重点实验室，北京 100190 3.中国科学院研究生院，北京，100190

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摘　要：

多媒体传感器网络能够采集和传输信息丰富的音频、视频、图像等多媒体信息,具有十分广泛的应用前景，是近年来无线传感器网络的研究热点。目前,国外多媒体传感器节点主要针对图像传输；国内使用的节点大多都难以满足多媒体信息处理和传输等方面的应用要求。本文针对鄱阳湖鸟类声音监测的应用，设计实现了一种新型的高性能多媒体传感器节点。实验结果表明，由该节点组成的多媒体传感器网络，能有效建立路由，实时地感知和采集网络覆盖区域内的多媒体信息。

关键词：传感器网络；多媒体传感器节点；音视频；目标监测；

The design and implementation of object-monitoring multimedia sensor node

Author's Name: XU zhi-sheng, SUN Yu-yan, LI li-qun, SUN li-ming

Institution: 1. School of information Engineering, Wuhan University of Technology,2. State Key Laboratory of Information Security, Institute of Software of Chinese Academy of Sciences3. Graduate University of Chinese Academy of Sciences

Abstract:

The Multimedia Sensor NetworkWSN,，which mainly focuses on sampling and collecting rich information such as audio, video and image, is a new kind of application mode of sensor network. It has very wide application prospect and has become research hotspot recent years. At present, multimedia sensor nodes from abroad are always expensive and narrowly targeted, while the design of domestic sensor nodes can not satisfy the high requirements of processing performance and RF bandwidth in mMultimedia sensor networkWSN. In this paper, we designed and implemented a new type of high-performance multimedia sensor node for birds' twitter monitor at Poyang lake. Experiment results prove that network composed of such nodes, can build routing effectively, sense and collect multimedia information in real-time.

Keywords: sensor network; multimedia sensor node; audio/video; object-monitoring

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