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Suzanne Redmond Maloco

s.redmondmaloco@nuim.ie

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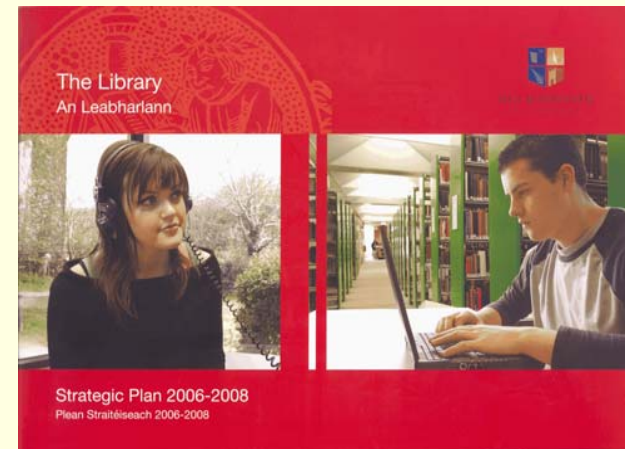
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mesh sensor networks | Search | Advanced Search
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Using Rugby MSF Broadcast for Time Division Multiplexing Synchronisation in a Housing Community Sensor Network

Maloco, John and McLoone, Seamus and Delaney, Declan T. (2006)**Using Rugby MSF Broadcast for Time Division Multiplexing Synchronisation in a Housing Community Sensor Network.** *IEE Signals and Systems Conference*, Dublin Institute of Technology.

Abstract

This paper presents the design of a new approach to networking a housing community, through the use of a mesh sensor network that consists of both wireless infrastructural mesh nodes and wireless sensor nodes. One key issue with such networks is the development of a suitable Medium Access Control (MAC) protocol for the purpose of transferring data from the sensor nodes to the infrastructural nodes. Here, we use a MAC protocol based on Time Division Multiplexing (TDM) and propose the use of the Rugby MSF broadcast as a synchronisation signal. This novel technique is investigated and some preliminary analysis is outlined.

Full text available as:

PDF - Requires Adobe Acrobat Reader or other PDF viewer.
99 Kb

Keywords:	Mesh Sensor Networks, Medium Access Control (MAC), Time Division Multiplexing (TDM), Rugby MSF Signal.
Subjects:	Engineering > Electronic Engineering
ID Code:	478
Deposited By:	Maloco, John
Deposited On:	02 March 2007
Publisher:	ISSC

Full Text:

Using Rugby MSF Broadcast for Time Division Multiplexing Synchronisation in a Housing Community Sensor Network

John Maloco, Séamus McLoone and Declan T. Delaney

Department of Electronic Engineering,
National University of Ireland Maynooth
Maynooth, Co. Kildare, IRELAND
E-mail: john.maloco; seamus.mcloone @ eeng.nuim.ie

This paper presents the design of a new approach to networking a housing community, through the use of a mesh sensor network that consists of both wireless infrastructural mesh nodes and wireless sensor nodes. One key issue with such networks is the development of a suitable Medium Access Control (MAC) protocol for the purpose of transferring data from the sensor nodes to the infrastructural nodes. Here, we use a MAC protocol based on Time Division Multiplexing (TDM) and propose the use of the Rugby MSF broadcast as a synchronisation signal. This novel technique is investigated and some preliminary analysis is outlined.

Keywords – Mesh Sensor Networks, Medium Access Control (MAC), Time Division Multiplexing (TDM), Rugby MSF Signal.

I INTRODUCTION

Much research has been carried out in recent years in

still form wireless communities to share data, music and video, play network games and/or partake in intranet activities

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