ECGR 6185/8185 - LECTURE - Reviewing Papers

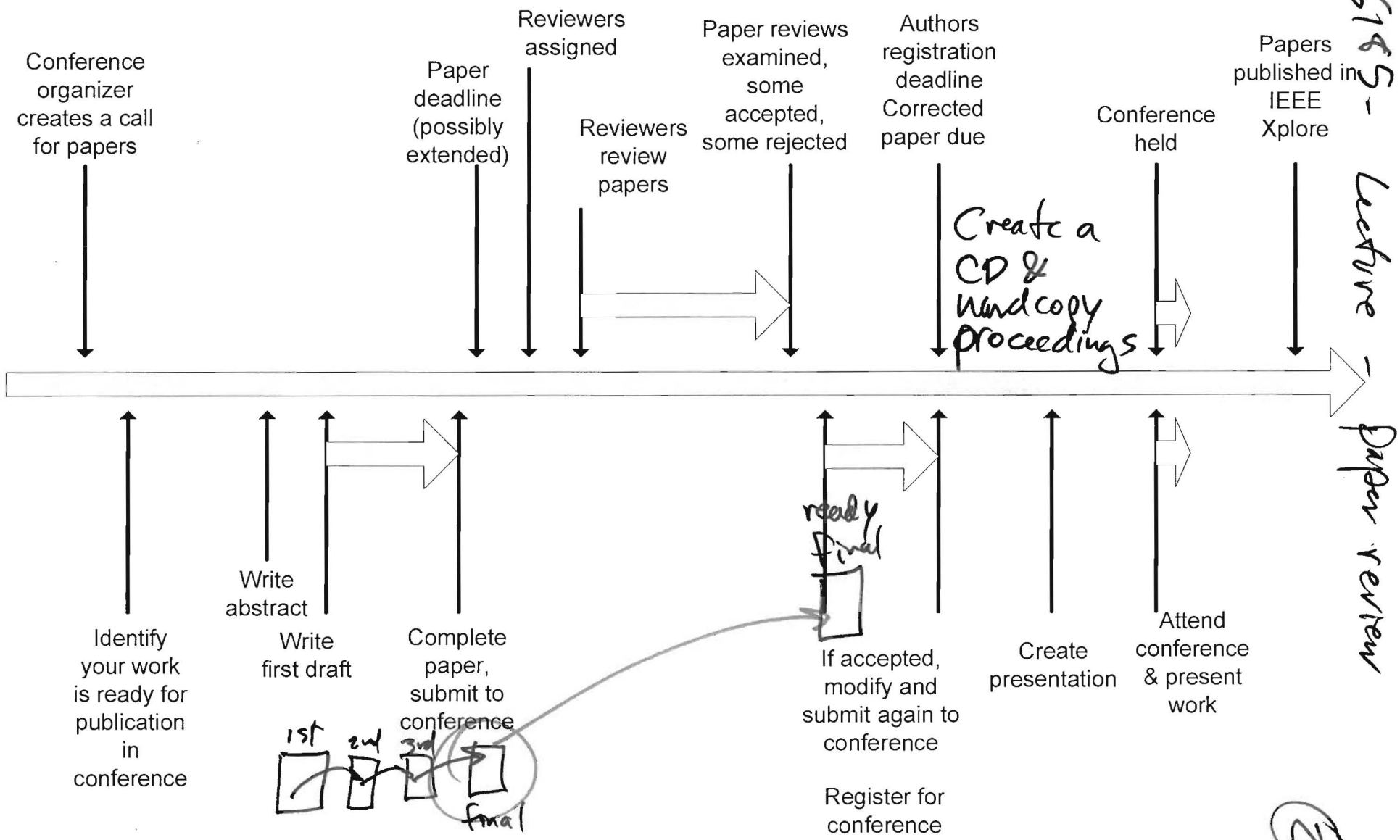
Why do we write papers?

* Recognition
* Communicate Ideas
* Cool
* Pass on/share knowledge
* Tenure / promotion
* MS/PhD degree
* Mentoring students

Why are papers published?

* all of the above
* Make $$

Conference Paper Publishing Timeline



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What are the most important parts of a paper? (3)

1) Title
2) Abstract
3) Keywords
4) Conclusion / Results
5) ~~Referencees~~
6) Introduction
7) Body

3.1 Authors

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A Wireless Quiz System using Low Power Microcontrollers

Good title words

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Abstract --- **One of the many important parts of any multi-participant quiz game show is the Player Selection System. All participating groups are equipped with a selection button placed in front of them which can be used by them to give a response. The Player Selection System determines the group that gives the first response. Many of these systems used today are wired systems that consume a considerable amount of power. This paper describes a robust wireless quiz system using a low battery-powered microcontroller interfaced with a RF wireless transmitter.**

Keywords: Microcontroller, RF wireless transmitter, 802.15.4, MSP430, MSP430F2274, CC2500

Add. Results Performance

I. Introduction

In a multi-group quiz competition, a question is put forth to the players and the one who responds first is the one who gets the opportunity to answer the question. This is done by visual, acoustical or electrical means. The problem with visual and acoustical means is that they often are not accurate methods for determining the first response. The requirement to determine the first response accurately motivates the need to have an electrical system for accurately selecting the participant giving the quickest response. The quiz system described in this paper is an electrical system that fulfills all the requirements of any ordinary quiz system with the added incentive of being wireless, which provides for added benefits such as ease of installation, portability, and reduced power consumption. The proposed system eliminates the drawbacks of currently used hard wired quiz systems.

II. Motivation

The objective of selecting the fastest response in a quiz game can be successfully achieved by means of a wired electrical system. However there are a number of drawbacks when such systems are used. These need to be addressed before one can actually start using the system. They are as follows:

1. All wired systems need to be physically disconnected and reconnected for every use, as all components are coupled together by means of wires.
2. Wired systems cannot be used outdoors or in extreme environmental conditions, unless specifically designed for it. This specification can incur a huge cost in the design of the system.
3. Numbers of participants within the game are required to be limited and every additional participant adds a significant cost to the overall system by increasing the cost for wiring, input to the player selection box, as well as power consumption. Therefore for adding more players into the game would require permanent physical changes to be made to the system and internal circuitry which increases the complexity of the selection circuit.
4. Another drawback of any wired system is that one needs to properly install each component and if any problem exists, there is always the possibility of loose connections due to wires or improper wiring.
5. The final drawback of wired systems is that they utilize an appreciable amount of power thereby adding to the functional cost of the system.

We can eliminate all of the above mentioned drawbacks of the wired quiz system by replacing it with a wireless quiz system that is operated using low power, low cost microcontrollers that are portable, inexpensive and robust. The advantage of having a wireless system is that one need not worry about factors such as correctness of installation, power input, number of players etc. The only action that the user of this product needs to take is to just power up the system and start using it. Previous [1,2]

III. System Overview

The developed system provides a solution based on the system requirements. The components of the system are described below.

A. Access Device: Quiz Master module

The following steps describe the order of operation of the Quiz Master module.

1. The quiz master module acts as the Access Device for receiving responses from the End Devices.
2. On initialization of the system, it acknowledges each end point trying to connect to it.
3. Once all of the end devices are connected, the quiz master can start the quiz.
4. The first response received from any player is displayed on the LCD screen.
5. The quiz master must press the reset button before asking the next question.

B. End Device: Participant Modules

The following steps describe the order of operation of the Participant Modules.

1. Participants use the end device to indicate their interest to answer the current question.
2. On power and initialization, the End Device tries to