



Senior Design Project Proposal

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1. Project title: **SpeakerTracker: Wireless camera presenter tracking system**

2. Project description:

More and more universities and conference organizers record video lecture and paper presentations. Typically, the recording is done by a person who must operate the camera throughout the presentation. The goal of this project is to develop an automated tracking system to track and video record the presenter on a stage.

3. Project steps and design objectives:

The following are the main steps.

1. Reading and summarizing articles or previous work related to this topic. Identification of system architecture. Identification of the main design steps to implement the proposed architecture. The objective is to develop a simple and cost-effective implementation.
2. Development of both hardware and software parts. Testing and verification.
3. Live demonstration.
4. Maintain a project website.

4. Prerequisites:

Basics of signal processing and communication. Some experience with programming in C/C++. Knowledge of Matlab would be a plus. Most importantly, students should be self-motivated to learn new interdisciplinary approaches that bridge knowledge and skills from electronics, wireless communication, signal processing, pattern recognition, and programming.