RoboTractor

A Secure Signaling and Control System for Remote Management of Agricultural Vehicles using XMPP and REST

Jeremy Wright

Arizona State University

Jlwrigh1@asu.edu

Arun Balaji Buduru

Arizona State University

abuduru@asu.edu

David Lucero

Arizona State University

dwlucero@asu.edu

*Abstract*—Here you need to describe the abstract of your project including (a) Problem statements, (b) project scope, (c) main tasks, and (d) schedule *\*CRITICAL: Do Not Use Symbols, Special Characters, or Math in Paper Title or Abstract*. (*Abstract*)

Keywords— put indexing key words here that (key words)

# Introduction (*Describe Project Goal*)

In this section, describe:

1. The problems to be addressed in this project.
2. Why these problems are important?
3. Applied technologies and solutions to address these problems.
4. Expected outcomes of this projects.
5. Project management plan (timeline, and group members, etc.)

# System Models

## System Model

Describe the system setup for this project (including proporiate diagram if needed).

## Software

Describe needed software (applications, tools, APIs) to develop this project.

## Security Model (optional)

This section is needed if the project is focusing on security. Describe attack source, attack goal, attach methods, and attack consequences.

# Project Description

Summarize the project description here.

## Project Overview

Describe how many project tasks are proposed and what their relations (dependency) in the project. Use diagram is needed. Provide midterm and final goals of this project.

## Task 1 : title..

Describe the proposed project task 1.

## Task 2: title..

Describe the proposed project task 2.

……

## Task k: title..

Describe the proposed project task k (if exists).

## Project Task Allocation

Describe the workload for the group members and they responsibility for the proposed tasks. Use table if possible to highlight the proposed workload and allocations. Use percentle to indicate the workload and identify the project lead of this project.

## Deliverables

Describe the expected outcomes of the projects: e.g., software packages, tools, algorithms, system designs, publishable materiasl (manuscripts, white papers, surveys, etc.).

## Project Timeline

Describe the roadmap of the project. Use Gantt Chart if possible to highlight the project roadmap based on the project tasks. Provide the timeline of midterm and final goals of this project.

# Risk Management of the project

Describe (a) what potential issues may prevent this project from being successful, (b) what mitigation strategies to prevent/mitigate the identified issues. A good project design should consider what if a task fails. How likely (low, medium, high), the proposed tasks may fail. Are there alternates/makeup/get-arround approaches available? Better use a table to highlight the risks and corresponding mitigation strategy.

# Conclusion

(a) summarize the project proposal, (b) Describe potential future work (or applications) that can be built based on the proposed work.

##### Acknowledgment

Put sponsor/mentor/assistance acknowledgments on developing this project proposal.

##### References

Reference is very important in your report. Please highlight where you have referred technical terms and solutions in the content. Following the IEEE citation format and provide a complete citation for each reference. The template will number citations consecutively within brackets [1]. The sentence punctuation follows the bracket [2]. Refer simply to the reference number, as in [3]—do not use “Ref. [3]” or “reference [3]” except at the beginning of a sentence: “Reference [3] was the first ...” Here are a few examples.

1. G. Eason, B. Noble, and I. N. Sneddon, “On certain integrals of Lipschitz-Hankel type involving products of Bessel functions,” Phil. Trans. Roy. Soc. London, vol. A247, pp. 529–551, April 1955. *(references)*
2. J. Clerk Maxwell, A Treatise on Electricity and Magnetism, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp.68–73.
3. I. S. Jacobs and C. P. Bean, “Fine particles, thin films and exchange anisotropy,” in Magnetism, vol. III, G. T. Rado and H. Suhl, Eds. New York: Academic, 1963, pp. 271–350.
4. K. Elissa, “Title of paper if known,” unpublished.
5. R. Nicole, “Title of paper with only first word capitalized,” J. Name Stand. Abbrev., in press.
6. Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, “Electron spectroscopy studies on magneto-optical media and plastic substrate interface,” IEEE Transl. J. Magn. Japan, vol. 2, pp. 740–741, August 1987 [Digests 9th Annual Conf. Magnetics Japan, p. 301, 1982].
7. M. Young, The Technical Writer’s Handbook. Mill Valley, CA: University Science, 1989.