A Latex Template and Tutorial

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***Abstract*— Please write some abstract here.**

I. Introduction

This is your introduction

II. Background

Some background

III. Model-Based Design

The vehicle model design is split into two parts: i) vehicle body or frame, and ii) chassis. We will discuss our approach for designing a realistic model to imitate a realistic scenario.

A. Designing Robots with ROS

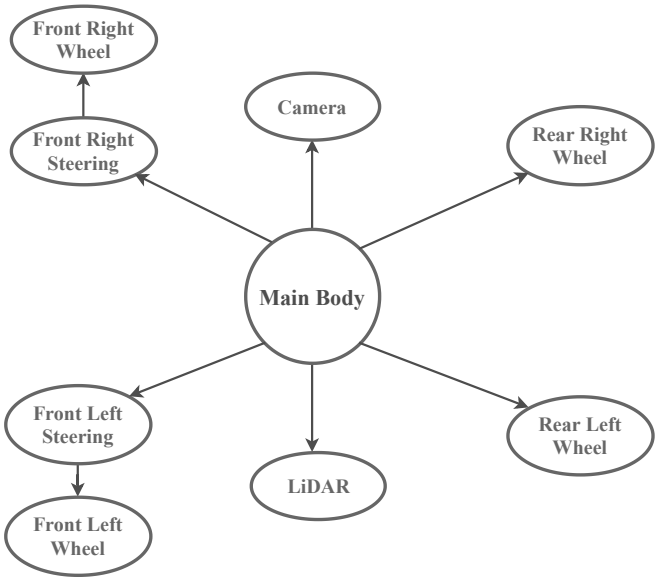

Fig. 1: A graph structure of CAT Vehicle model.

$$\int_V p(x,y,z)dV \tag{1}$$

$$y = \frac{\partial(x^2 + e^x + \sin(x))}{\partial x} + \frac{\partial x^5}{\partial x} + \frac{\partial}{\partial x}\cos x + \log_2 x \tag{2}$$

$$A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} \tag{3}$$

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I am refering to Equation (2) and (3).

$$\begin{aligned} I_{xx} &= 347.195805 kg/m^2 & I_{xy} &= -11.4914985 kg/m^2 \\ I_{xz} &= 18.5070628 kg/m^2 & I_{yy} &= 2330.10026 kg/m^2 \\ I_{yz} &= 3.97814264 kg/m^2 & I_{zz} &= 2529.41827 kg/m^2 \end{aligned} \tag{4}$$

B. Create Parts of Robots

This where you define parts of robots

IV. Enabling Model-based design

I am referring to Section III-B.

V. Experiments and Results

Describe your experiment and results [1].

VI. Conclusion and Future Works

What is the take home message from your research and how community benefited from it? Is there any shortcomings of this projects? Any limitation in the result you got? How will solve them in future? What are the possible extension and application of the current work? What would you like to do in the future?

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References

[1] R. Bhadani, J. Sprinkle, and M. Bunting, "The CAT Vehicle Testbed: A Simulator with Hardware in the Loop for Autonomous Vehicle Applications," *Proceedings of 2nd International Workshop on Safe Control of Autonomous Vehicles (SCAV 2018), Porto, Portugal, 10th April 2018, Electronic Proceedings in Theoretical Computer Science 269, pp. 3247*, 2018.