# Preparation of Papers for IEEE Sponsored Conferences & Symposia

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#### Abstract—This electronic document is a live template.

#### I. INTRODUCTION

This template provides authors with most of the formatting specifications needed for preparing electronic versions of their papers.

#### II. PROCEDURE

#### A. Simulation Environment

The simulation environment was set as a 500 by 500 pixel virtual space, where the simulation agents could move in two dimensions. (Figure 1). The size of each agent was defiend as the radius of 5 pixel circle. Therefore, when more than two agents approached each other at the distance of closer than 5 pixel, those agents' collision count was added. In one trial, all agents moved 500 steps.

# B. Avoidance Algorithms

Based on the collision avoidance algorithms, agents were classified into two types.

For one of types, simple avoidance agent, their avoindace vectors were generated to the opposite direction of the other agents which approached within a 50 pixel. The size of avoidance vectors were fixed as either 1, 2, 3, 4, or 5 pixel in one trial. For another type of agent, which we call as the dynamic avoidance agent, their avoidance vector were generated based on the braking index. When an agent approach to another agent within 50 pixel, the braking rate was calculated based on their relative positions and speeds, and their avoidance vectors were determined from 1 to 3 pixel. This way of avoidance enabled agents to avoid other agents considering how much potential danger they are facing; in safer situations, agents avoid slightly, on the contrary, in more dangerous situation, agents avoid widely not to collide each other.

# III. MATH

Before you begin to format your paper, first write and save the content as a separate text file.

### A. Abbreviations and Acronyms

Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract.

# B. Units

• Use either SI (MKS) or CGS as primary units.

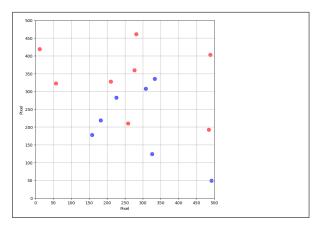


Fig. 1. Overview of the simulation environment

# C. Equations

The equations are an exception to the prescribed specifications of this template.

$$z\alpha + \beta = \chi \tag{1}$$

Note that the equation is centered using a center tab stop.

#### D. Some Common Mistakes

• The word data is plural, not singular.

# IV. USING THE TEMPLATE

Use this sample document as your LaTeX source file to create your document.

# A. Headings, etc

Text heads organize the topics on a relational, hierarchical basis.

# B. Figures and Tables

Positioning Figures and Tables.

# $\begin{tabular}{l} TABLE\ I \\ An\ Example\ of\ a\ Table \\ \end{tabular}$

One	Two
Three	Four

Figure Labels: Use 8 point Times New Roman for Figure labels.

We suggest that you use a text box to insert a graphic because, in an document, this method is somewhat more stable than directly inserting a picture.

Fig. 2. Inductance of oscillation winding on amorphous magnetic core versus DC bias magnetic field

#### V. CONCLUSIONS

A conclusion section is not required. Although a conclusion may review the main points of the paper, do not replicate the abstract as the conclusion. A conclusion might elaborate on the importance of the work or suggest applications and extensions.

#### **APPENDIX**

Appendixes should appear before the acknowledgment.

# ACKNOWLEDGMENT

The preferred spelling of the word on the first page.

#### REFERENCES

[1] G. O. Young, Synthetic structure of industrial plastics (Book style with paper title and editor), in Plastics, 2nd ed. vol. 3, J. Peters, Ed. New York: McGraw-Hill, 1964, pp. 1564.