#### IEEE CIS STUDENT COMPETITION 2017-EDITION:

"TELLING A STORY: HOW YOUR COMPUTATIONAL INTELLIGENCE RESEARCH BENEFITS SOCIETY AND HUMANITY"

# Web-based Interactive Demo of Robot Navigation using Fuzzy Control Instruction

# 1 DETAILS

• Online demo: Web Demo

• Link of this document: Demo Instruction

• Name of Student: Watchanan Chantapakul

• Education Institution: Chiang Mai University

• Supervisor: Sansanee Auephanwiriyakul

• Type of Artefact: Interactive Tutorial / Demo

# 2 Introduction

This work aims to develop a web-based application which show the way robot navigation system works interactively. Thus, the demo was designed to be built with web technology. It enables us to be more accessible from everywhere via internet. HTML and CSS are the main languages used to structuring web pages and defining styles, respectively. Moreover, JavaScript — a programming language which adds interactivity to web pages, is inserted in each part of an HTML document.

## 3 Instruction

Firstly, you needs to open the url of online demo mentioned above with your browser. You will see the home page, which shows summarized details about this project and content. The navigation bar placed on the top of every pages makes the user navigate through each different page. It includes links to (1) Home (2) Demo (3) Membership Functions, and (4) About. For the last one, after clicking the button, a dialog will be popped up to shows author's information.

Robot navigation simulation is included on the left side of *Demo page*. On the right side on this page, fuzzy rules are also displayed in form of tables. They are grouped into four tables in according to its output. You can play with the robot inside the square canvas provided in size  $600 \times 600$  pixels.

## REFERENCES

[1] Knuth: Computers and Typesetting,

http://www-cs-faculty.stanford.edu/~uno/abcde.html