

# Mintra Ruensuk

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🐦 i4110017

## What is your research question for your PhD?

TBD

## What research have you done in the past?

I have received Master Degree in Computer Science (Software Engineering) in 2012 from Asian Institute of Technology, under the supervision of Dr. Matthew Dailey. I have researched about Human Robot Interactive in service environment and came out with the thesis entitled “*Voice, Gesture, and Web Interfaces for Human Robot Interaction in Service Environments.*” I studied the interaction between robot and human being throughout voice, gesture, and Web Interfaces with Turtlebot (an iRobot Create integrated with a Microsoft Kinect). My research focused on the development of interfaces in order to facilitate non-experience user to simply control the robot.

Robot Operating System (ROS) is used as a framework which can obtain, build, write, and run code across multiple computers and multiple robots. Moreover, the ROS package was created on top of ROS to receive commands from user such as voice command, and finger command in term of gesture. From three interfaces, they are all satisfied with qualitative evaluation as Turtlebot can achieve correct destination and respond to the command in a timely manner. In term of user aspect, web-based system is most satisfied as it is convenience to user (drag and drop) and can provide related information on web page such as robot position, obstacles, inflated obstacles, laser scan, and a compressed video coming from Microsoft Kinect.

Before my thesis study, 2011, I have studied the Kinect technology to understand the definition of gesture recognition and gesture tracking. It was enable me to develop the program that allows user to interact with Kinect. With this program user can draws any shape they want, but I expected them to draw shapes within rectangle, circle, and even triangle. The contour is used to synthesize whether the shape is. Then, the result of hand tracking would be performed to the user.

The research that I have been conducted during the past three years is contributed not only to my master degree but it is also meaningful to other researchers. As a result, I have a passion to pursue my higher education in a broad area of human interface technology. To fulfill my long term future as a university lecturer, or a researcher in Thailand.

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## Nationality

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Citizen of Thailand

## Gender

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Female

## Education

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**Asian Institute of Technology**

**Thailand**

*M.Sc, Computer Science (Specialize in Software Engineering), 3.28*

*2010 – 2012*

**Mahanakorn University of Technology**

**Thailand**

*B.Sc, Information Technology (First Class Honours), 3.93*

*2005–2009*

Senior project: Information Technology Jobs Matching By Groovy on Grails

## Master thesis

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**title:** *Voice, Gesture, and Web Interfaces for Human-Robot Interaction in Service Environments*

**supervisors:** Matthew Dailey, PhD

**description:** Implement the system to enable human to interact with robot in terms of human- robot interaction via multiple interfaces; voice, gesture, and Web-based with the TurtleBot (an iRobot Create integrated with a Microsoft Kinect) using the framework named Robot Operating System. Available online at <https://sites.google.com/site/vgwhri/home>

# Experience

## Vocational.....

<b>Employer</b>	<b>City</b>
<i>Job title</i>	<i>year–year</i>
General description no longer than 1–2 lines.	
Detailed achievements:	
○ Achievement 1;	
○ Achievement 2, with sub-achievements:	
- Sub-achievement (a);	
- Sub-achievement (b), with sub-sub-achievements (don't do this!);	
· Sub-sub-achievement i;	
· Sub-sub-achievement ii;	
· Sub-sub-achievement iii;	
- Sub-achievement (c);	
○ Achievement 3.	

<b>Employer</b>	<b>City</b>
<i>Job title</i>	<i>year–year</i>
Description line 1	
Description line 2	

## Miscellaneous.....

<b>Employer</b>	<b>City</b>
<i>Job title</i>	<i>year–year</i>
Description	

# Languages

<b>Language 1:</b> Skill level	<i>Comment</i>
<b>Language 2:</b> Skill level	<i>Comment</i>
<b>Language 3:</b> Skill level	<i>Comment</i>

# Computer skills

<b>category 1:</b> XXX, YYY, ZZZ	<b>category 4:</b> XXX, YYY, ZZZ
<b>category 2:</b> XXX, YYY, ZZZ	<b>category 5:</b> XXX, YYY, ZZZ
<b>category 3:</b> XXX, YYY, ZZZ	<b>category 6:</b> XXX, YYY, ZZZ

# Interests

hobby 1: Description

hobby 2: Description

hobby 3: Description

# Extra 1

○ Item 1

- Item 2
- Item 3. This item is particularly long and therefore normally spans over several lines.  
Did you notice the indentation when the line wraps?

## Extra 2

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- |          |  |
|----------|--|
| ◦ Item 1 | ◦ Item 4   |
| ◦ Item 2 | ◦ Item 5[?]  |
| ◦ Item 3 | ◦ Item 6. Like item 3 in the single column list before, this item is particularly long to wrap over several lines. |

## References

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Category 1	Category 2	All the rest & some more
◦ Person 1	Amongst others:	<i>That</i> person, and <b>those</b> also (all available upon request).
◦ Person 2	◦ Person 1, and	
◦ Person 3	◦ Person 2 (more upon request)	