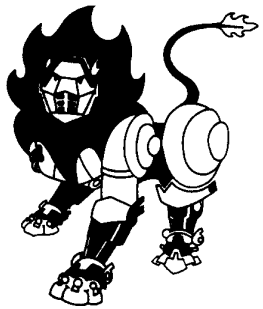

ONE DAY ROBOTIC WORKSHOP

ON

Introduction to Service robotics and ros

By

Dr Steve Cousins

Savioke, California, USA

Friday, 29 January 2016

9.00 AM TO 5.00 PM

Venue: Marie II, Upper Lobby Level

York Hotel Singapore

21 Mount Elizabeth, Singapore 228516

The Robotic Workshop is held in cooperation with

IEEE Robotics and Automation Society Singapore Chapter

and is jointly organised by

Robotic Games Society (Singapore), Institute of Technical Education, Nanyang Polytechnic, Nanyang Technological University, National University of Singapore, Ngee Ann Polytechnic, Republic Polytechnic, Singapore Polytechnic, Singapore Science Centre & Temasek Polytechnic.

Robotic Workshop Registration Form

Introduction to Service Robotics and ROS

COMPANY DATA

COMPANY: _____

ADDRESS: _____

_____

_____

POSTAL CODE: _____

TEL: _____ **FAX:** _____ **E-mail:** _____

CONTACT PERSON: _____

PARTICIPANTS FOR THE WORKSHOP

1. NAME: Mr. / Mrs. / Dr.* _____

DESIGNATION: _____ **E-mail:** _____

2. NAME: Mr. / Mrs. / Dr.* _____

DESIGNATION: _____ **E-mail:** _____

3. NAME: Mr. / Mrs. / Dr.* _____

DESIGNATION: _____ **E-mail:** _____

** Cancel where applicable*

Number of Car Park Pass(es) required : ____

Diet restrictions – International "Halal" Food _____ , Vegetarian _____

Fee enclosed: S$_____. Cheque should be crossed and made payable to **Robotic Games Society (Singapore).** Completed forms and cheques should be sent to:

Mr. Yee Choon Seng
SIMTech (Tower Block)
71 Nanyang Drive, Singapore 638075

Tel: 6793-8390 Fax: 6793-8383 E-mail: csyee@simtech.a-star.edu.sg

Robotic Workshop on **Introduction to Service Robotics and ROS**

The importance of service robotics has emerged with many advances especially in the recent years. These developments opened up many new applications that bring robotics capabilities outside the factory floor, to our everyday lives in unstructured and human environments. An important advancement is the development of the "Robot Operating System" (ROS), which accelerates the development of improved robotics capabilities and applications through an open source software framework, where software modules are shared with the community allowing new capabilities to be achieved based on existing capabilities, thus raising the bar in the performance of robotics systems.

This workshop reviews the technologies related to service robotics and introduces ROS and the related tools for developing robotics capabilities and applications. The format will be a combination of lecture style, interactive discussions, and hands-on exercises. Participants are encouraged to bring their own laptops with Ubuntu 14.04.3 LTS (http://www.ubuntu.com/download/desktop) and ROS Indigo (http://wiki.ros.org/indigo/Installation/Ubuntu) installed. Savioke's relay robot will be available for the hands-on exercises.

You can create a virtual machines using software such as VMware or VirtualBox, which run on Windows; so you can still retain your windows operating system in your laptop, but run Ubuntu on a virtual machine.

About the Speaker

Steve Cousins is a world leader in service robotics. He is passionate about building and deploying robotic technology to help people. Before founding Savioke, he was the President and CEO of Willow Garage, where he oversaw the creation of the robot operating system (ROS), the PR2 robot, and the open source TurtleBot. Steve serves on the boards of the Open Source Robotics Foundation and Silicon Valley Robotics, and is an active participant in the Robots for Humanity project. Steve has been a senior manager at IBM's Almaden Research Center, and a member of the senior staff at Xerox PARC. He holds a Ph.D. from Stanford University, and BS and MS degrees in computer science from Washington University.

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Details of Robotic Workshop

Date : **Friday, 29 January 2016**

Time : **9.00 am to 5.00 pm**

Fee : **S$350** per participant.

Full Time Students: **S$70**. Please attach a copy of **student matriculation card** with registration.

Venue : **Marie II**, Upper Lobby Level
York Hotel Singapore, 21 Mount Elizabeth, Singapore 228516

Who Should attend:

Engineers, professional, scientists, and students involved or interested in creative design using new technologies, robotics, and automation.

PROGRAMME

9:00 am :	Registration followed by Welcome remarks
10:30 am:	Morning Break
12:30 pm:	Lunch
3:15 pm:	Afternoon Break
5:00 pm:	End

Workshop Topics:

1. Service Robotics
2. Localization, Map Building and Navigation
3. ROS Architecture
4. Hands on Sessions – basic capabilities in ROS
5. Obstacle avoidance and dealing with uncertaintites
6. Robotics Application Exercises
7. Summary and discussions