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Robotic Games Society (Singapore)

22nd Singapore Robotic Games, 2015

28 - 29 Jan 2015, Tay Eng Soon Convention Centre, ITE Headquarters, Singapore

Automation is a key factor towards advancement of Singapore to a technologically sophisticated country. Singapore has responded with several programs in place towards inculcating automation culture to the general public. The annual Singapore Robotic Games is one of the major programs that was first held in December 1993.

The annual Singapore Robotic Games was conceived to coordinate all efforts of the academic and research institutions towards advancement in robotics and automation. The Singapore Robotic Games is patterned like the Olympics but instead robots would participate in events. As in the Olympics, the events of the SRG are challenging for current robots. They required research and development work towards higher-performance robotic systems. The entries and exhibits to the SRG are therefore not commercial products. Entries will naturally come from academic and research institutions; although the SRG is also open to industrial participation. Thus the SRG is meant to display to the public interesting tasks that robots are capable of doing, i.e., a glimpse into the future generation commercially-available robots.

Recognising the need to induce interest in automation to our young, the automation club was formed in several secondary schools. At this level, they would have acquired the necessary background to be able to do some automation projects. Since the secondary schools do not have infrastructure for automation projects, they need support from tertiary institutions to get them started. All Singapore Robot Games will have at least one competition targeted for Secondary School participation.

The objectives of the Singapore Robotic Games are:

- to inculcate in the general public an understanding and appreciation of robotics and automation;
- to educate the general public on the things robots can do that are quite apart from industrial tasks:
- to help in the technology development by providing benchmarks for practical robotics research and development; and
- to encourage innovation in design among young engineers and provide them with a forum to display their works

Besides the first two objectives of inculcating automation culture to and educating the general public, the SRG hopes to co-ordinate efforts of all academic and research institutions towards practical robotics and automation. The events in the SRG provide benchmarks for robotic devices. All institutes will then work towards achieving this benchmark while competing with each other. This will lead to further advancement of robotics and automation technology in Singapore. Each year, the events of the SRG are made progressively more challenging with at least one new event or competition. This provides continuity and ensures continuous growth of technology.

The last objective is very important. Only through recognition will participants be rewarded for their hard work. What better way to recognise their achievements than to display their works to the general public. Also through this public displays, spin-offs in terms of commercialisation, further developments by other parties, wider participation, etc. would be possible.

Sixteen events are planned for the games. They are:

- **Open Category**
- Legged Robot Marathon Race
- Wall Climbing Robot Competition .
- Pole-Balancing Robot Competition
- International Robot Contest .
- **RC** Sumo Robot Competition
- Autonomous Sumo Robot Competition •
- Robot Colony Competition

- Picomouse Competition (Open, JC/ITE and Sec.Sch.)
- Schools Robotic Competitions (for secondary schools)
- RC & Autonomous Underwater Robot Competition
- Robot Soccer Competition, and
- Humanoid Robot Competition

SRG 2015 is open to all, and international participation is encouraged. For more information, please contact Marcelo H. Ang Jr., National University of Singapore, e-mail: mpeangh@nus.edu.sg, or visit http://guppy.mpe.nus.edu.sg/srg/ for updated information.