

RoboCup2019

2-8 July 2019

Sydney | Australia

Fast Facts:

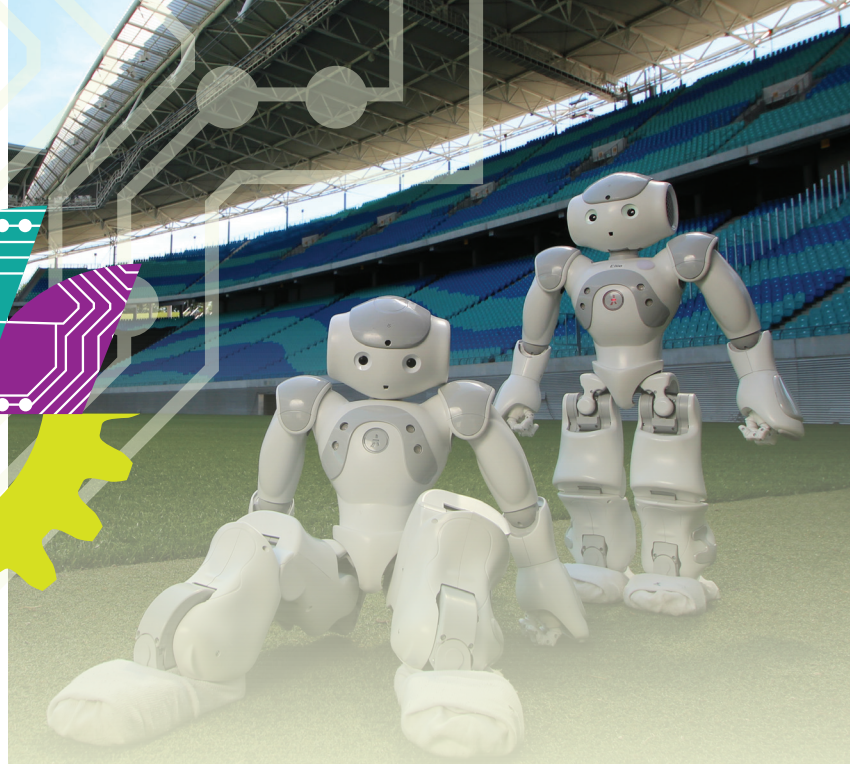
Client: UNSW Sydney / RoboCup Federation and RoboCup Australia

Genre: Artificial Intelligence and Robotics Research

Dates: 2 – 8 July 2019

Location: International Convention Centre, Sydney

Economic Impact: \$7m to the Australian economy



Overview

RoboCup is unlike any other Association Event in the world, in that their annual event ensures its members participate in a unique fashion - through a competition. The competition includes soccer robots, rescue robots, and robots for the home and industry. All competitions across all leagues are intended to encourage research in Robotics and AI that can be applied across various sectors. An accompanying junior competition aims to promote STEM education in schools. The event draws delegates from many top technology companies such as Google, Microsoft and Dell.

In addition to organising the build of the complex competition arenas ICMSA also organised and delivered the accompanying aspects of the event such as the Opening Ceremony, the Junior Party for 600 participants, the Major Party for 900 participants and the Award Ceremonies for all competition winners and runners up.





STEM

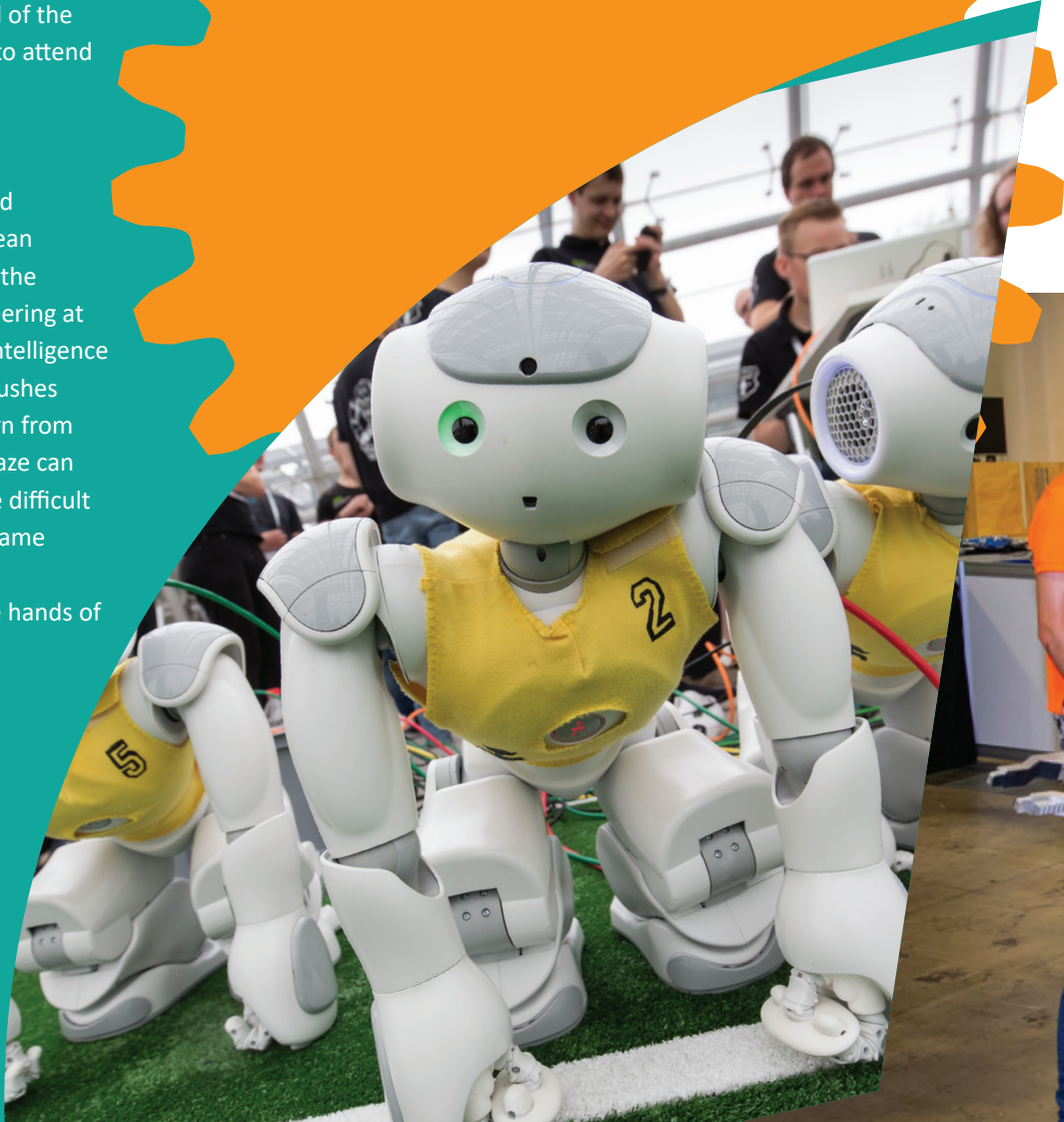
RoboCup Junior aims to promote STEM education for school students, and Australia has one of the most active competitions in the world. As well as encouraging their studies, students develop many other life skills, learning to work in teams, leadership and meeting other school students from many different countries.

RoboCup 2019 facilitated students working side-by-side with some of the world's best robotics engineers, programmers and designers had access to the cutting edge of robotics technology which was an absolute privilege for Australian STEM students.

The once in a lifetime opportunity was provided to Schools around Australia to take part in RoboCup 2019. The RoboCup 2019 website contained a dedicated webpage with all of the information needed for School Groups to attend including a dedicated registration link.

The 'Space Race' of Robotics

"This is the 'space race' of robotics," said Professor Maurice Pagnucco, Deputy Dean (Education) in Engineering and Head of the School of Computer Science and Engineering at UNSW, and a noted expert in artificial intelligence and cognitive robotics. "Competition pushes advances in technologies. What we learn from robots playing soccer or navigating a maze can be applied to industry and help us solve difficult real-world problems," he added. "The same vision system developed by UNSW for RoboCup is now being used to track the hands of workers in a sawmill, to ensure the machinery avoids causing injuries."





Winners share code

UNSW Team Manager of rUNSWift commented: “Every year the league makes the rules harder to challenge us, so every year the teams get better, the winning teams have to release their code to other teams so it’s open source. That means teams can take their whole code base and run it next year, so the team that wrote it originally has to write something better next year. The starting base for each RoboCup is at the winning level.”

This is one of the most unique elements of RoboCup and the reason for its continued success. The winners share their code for all to develop as a base for subsequent RoboCups.

NSW Police Rescue & Bomb Disposal Unit

One of the senior competitions was robots for urban search and rescue. Rescue aims to develop robots capable of entering dangerous locations, e.g. after a disaster, to survey the site and locate victims, and assist the human first responders. For the first time, the RoboCup Rescue Robot League directly engaged with local responders, the NSW Police Rescue & Bomb Disposal Unit. They played an integral role in preparing the arena and demonstrated their capabilities on a world stage.

Outreach Program with Industry Partners

The RoboCup 2019 exhibition was incorporated into the competition area creating a hive of activity and interaction for all to experience. Housing exhibiting organisations in the Major Halls and Junior Hall, the exhibition was the perfect environment for participants, school groups and the public to view the latest technology, trends and services available in the robotics community. RoboCup global sponsors Softbank, Mathworks and FESTO worked closely with the ICMSA team to manage all their logistics. These international organisations are well known in supporting this field of work and ICMSA obtained additional local sponsors that boosted the legacy of this event.

News Media

ICMSA dealt with over 40 media organisations for RoboCup 2019 from all over the world, with coverage through TV, Radio, Online and Print media. This includes a Channel 9 News which was on-site on Sunday for the entire morning Live Weather Segment. This broadcast aired nationally around Australia through six different segments filmed around the competition floor.

Social Media

The RoboCup 2019 hashtag created significant trends on social media throughout the entire event. It allowed participants, the public and sponsors and exhibitors to share personal updates on how they thought the competition was developing whilst giving them an opportunity to communicate with other participants. Both the Facebook (RoboCup2019) and Twitter (@RoboCup2019) accounts were created however, the hashtag of #RoboCup2019 was the most popular form of communicating on social media. Google results were 574,000 for RoboCup 2019. An outstanding number!



Public Attendance

Attendance was open to the General public to take part in RoboCup 2019. The RoboCup 2019 website contained a dedicated webpage with all of the information needed for the public to attend including a dedicated registration link.

The Numbers

2,283 participants

30 Sponsors & Exhibitors

40 Media

418 volunteers

123 VIP's

43 Countries

Significance and Legacy

As the world's biggest annual robotics event RoboCup injected over \$7 million into the Australian economy. This figure was calculated through the stringent post-event reporting with the NSW Government. In addition, RoboCup drives innovation in perception, locomotion, teamwork and many other aspects of AI, Robotics and Machine Learning. Hosting an event of this significance will see generational benefits to the thousands of university and school students who attended from within Australia alone.

Robotic tools from RoboCup 2019 were recently used in the NSW Bushfires recovery efforts

After the competition, the rescue arenas, which consist of standard test methods used around the world for testing robots and their operators, were donated to bomb squads and other responders around Australia. This lasting legacy of the four-day competition will help to ensure that Australian responders have the best robotic tools and training available and cannot be fully measured in economic terms, but is estimated to be in excess of \$2 million. ICMSA has been informed that robotic tools from RoboCup 2019 were used in the NSW Bushfires recovery efforts.

Client Comment – Professor Claude Sammut, UNSW:

“ICMSA was the only PCO that really understood the uniqueness of the event. Led by Managing Director Emma Bowyer, the team was able to answer our questions about building arenas, network management, logistics, accommodation, security and many other details. Furthermore, the whole ICMSA team was clearly enthusiastic about tackling such an ambitious project. One of their stated missions is to support scientific and educational events, and this gave us confidence that they would not only do their job, but would be our partners in delivering an outstanding event”.

