

ICRA 2018 Program Chair Report

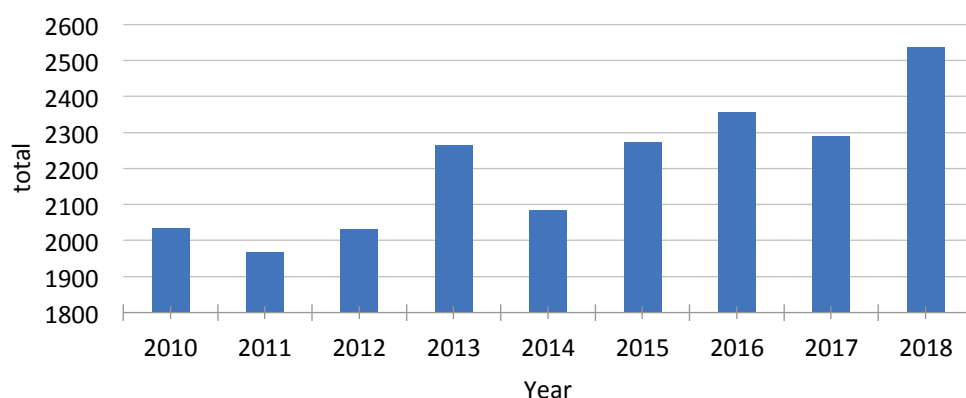


Submissions. This year a record number of papers were submitted directly to ICRA (1981) and to RA-L with the ICRA option (605). This represents an increase of 4% and 48% over last year respectively – clearly the RA-L/ICRA option is growing in popularity. The long-term average is a growth rate of around 60 papers per year. The submission process accommodated, as much as possible, the hardships inflicted on authors by hurricanes and earthquakes in the days prior to the deadline.

Professor Peter Corke
Program Chair, ICRA 2018

The most papers came (in decreasing order) from USA, PRC, Germany, Japan, Italy etc. On a per-capita basis the most papers came (in decreasing order) from Singapore, Switzerland, Australia, Denmark, Finland etc. The top 5 keywords (in decreasing order) were: Deep Learning in Robotics and Automation, Motion and Path Planning, Learning and Adaptive Systems, Localization, and SLAM.

Submissions vs Year

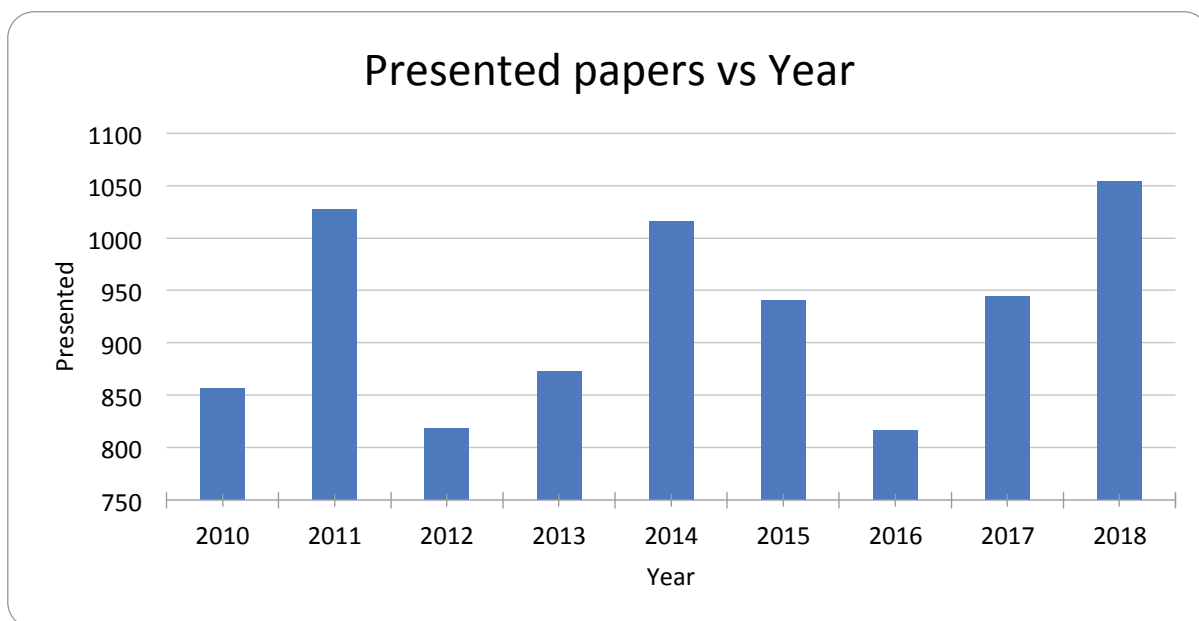
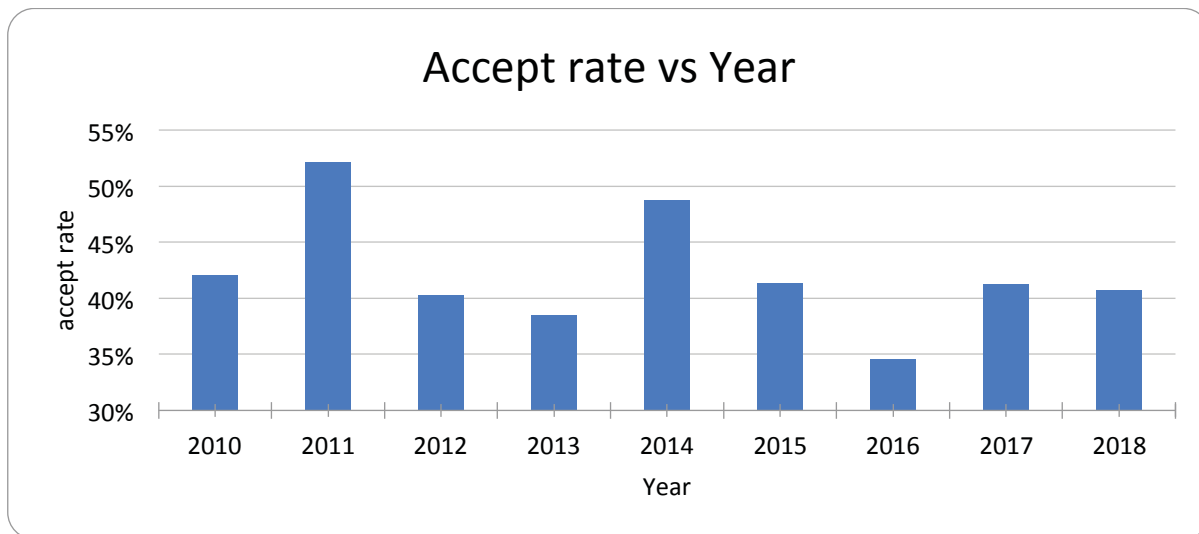


Review. The papers were reviewed by two parallel processes. Direct ICRA submissions were handled by the ICRA Conference Editorial Board led by the editor-in-chief Kevin Lynch. He was assisted by 16 editors, 306 associate editors and the hard work of reviewing was done by 3402 reviewers. RA-L papers with the ICRA option were handled by the RA-L Editorial Board led by the editor-in-chief Antonio Bicchi. All papers received at least 2 reviews, with an average of 2.7 reviews per paper. High quality reviews are the essential foundations of a great conference and I thank all those who contributed their time to the review process.

A number of Transactions on Robotics (TRO) papers were also selected by the TRO editor-in-chief Frank Park for consideration at ICRA and 20 of these were selected. Unlike last year, the TRO papers are not differentiated in the conference program and are mixed with ICRA and RA-L submitted papers. From 2019, TRO and Robotics & Automation Magazine (RAM) will have the option for presentation ICRA.

Acceptance. A major task of the Senior Program Committee (SPC) meeting held in Brisbane 6-7 January 2018 was deciding how many papers should be accepted. We selected 1056 papers which gives

an acceptance rate of 40.8% (excluding TRO papers). This is a little lower than the long-term average, but is achieved while also presenting a record number of papers. Accepted papers come from 51 countries.



Presentation. All papers this year are presented in interactive mode in two 2.5 hour sessions per day. There are some significant differences compared to previous ICRA and IROS meetings that have used the interactive presentation format:

- **Spotlight videos.** Traditional spotlight sessions are logistically complex to run, stressful for the presenters, and compete with parallel interactive sessions. We believe the spotlight videos go some way to addressing these challenges. The videos are online but also available on the conference USB stick and via the conference app, allowing them to be reviewed at any time before and during the conference. We have organized the videos into various playlists: by day, by session, by keywords.

- Interactive presentations are arranged in sessions and presented in discrete pods (labelled A through V), effectively serving as spatial focal points for particular technical interests.
- Posters rather than video displays. This was a deliberate choice motivated by the needs of the conference attendee to quickly get the gist of the paper even when the presenter is engaged in conversation with other attendees. Laptops are ubiquitous and more than adequate to serve as a secondary display for videos, animations or other supporting media. To support true interactivity, we also provide a white board surface for every presentation.

These innovations help us explore new ways to effectively present a record number of papers. This is critical for our future because we can be sure that ICRA, as the premiere international robotics conference, will continue to grow.

Awards. There are now 11 ICRA best paper awards, and this year sees a new award for best UAV paper. A significant amount of work at the SPC meeting, and subsequently by the award chairs, was devoted to selecting award candidate papers from the ICRA and RA-L submissions. A total of 35 papers were selected as award nominees. Best papers in any of the categories are also eligible for the best paper or best student paper award. The award candidate papers will be presented orally in the award paper track which runs on Tuesday and Wednesday of the conference. These papers also have an interactive presentation.

Workshops and tutorials. 35 workshop and 6 tutorial proposals were submitted. This year, for the first time, the review process was run by the editor-in-chief of the Workshop and Tutorial Editorial Board Oliver Brock assisted by 2 editors. A total of 31 workshops and 4 tutorials were selected to run at ICRA. These will run on the days before and after the main technical program.

Abstract only posters provide the broader robotics and industrial community with an opportunity to describe industrial robotics projects, new robotic technology, or recent research results. We accepted 60 abstracts for poster presentation, 20 per day, in parallel with the main interactive presentations. These are included in the conference proceedings but will not appear on IEEE Xplore.

Professor Peter Corke
Program Chair, ICRA 2018