

Reflections on ICRA 2022

By Frank Park 

Having witnessed the nearly five thousand participants gathered in Philadelphia for the IEEE International Conference on Robotics and Automation (ICRA) 2022, I think it's safe to say that in-person meetings are emphatically back. It's true that the coronavirus continues to evolve and still stubbornly refuses to go away, and many travel restrictions across borders remain in place. Still, after more than two years of meeting remotely, the chance to have informal conversations in the hallway with speakers, to connect with both old and new friends outside meetings, and to

tude on behalf of the entire robotics community.

I was struck by several trends and events at this most recent ICRA. First, the hybrid format appears here to stay for future ICRAs. Despite some small kinks in the technology, there does appear to be a sizable segment of participants for whom virtual attendance is the preferred (and, in some cases, the only) option.

Second, I was particularly struck by the passion and enthusiasm of the many—including many men—who attended the RAS Women in Engineering (RAS-WiE) event. The outpouring of pent-up frustrations at the many challenges and subtle forms of discrimination that women roboticists continue to face in the workplace and at our conferences as well as at home was both a sobering revelation and a reminder of how far we as a community have to go. To the organizers of the RAS-WiE event, I wish to both thank you for your efforts and entreat you to continue to organize this event at future ICRAs.

The third development that struck me was the presence of nearly 100 industry exhibitors and sponsors at ICRA 2022. It doesn't seem that long ago when ICRAs struggled to attract half that number; the exhibitors who showed up were mostly research equipment manufacturers, lab start-ups, and publishers, with a smattering of established industrial robotics companies mixed in who often



did not return. As noted in an article by Vice President of Industrial Activities Andrea Keay appearing in this issue of *IEEE Robotics & Automation Magazine*, more robotics

companies have been formed in the last 10 years than in the entire history of robotics. While we are likely still far away from a “robot in every home,” the predictions of a coming wave of innovation in robotics and automation that will lead to sustainable, scalable companies, does not seem that far-fetched.

To engage this new and burgeoning segment of our community, discussions are underway on the launching of a new publication designed for robotics and automation practitioners. The focus of this new publication will be on algorithms, software, designs, and systems integration as well as empirical case studies that are of near-term benefit to practitioners. Such results are likely not ideal for our existing publications, and yet, more and more, as the robotics industry continues to expand and mature, we can expect interest in such studies to increase. I invite you to read more about the activities of our Industrial Activities Board, and to share your thoughts and feedback on how the IEEE Robotics and Automation Society can better engage with the growing segment of members from industry.



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disconnect from the distractions of daily life and rituals were, especially for me, too much to pass up. To the organizers and volunteers who organized such a tremendously successful event through the uncertainty and challenges of the pandemic, let me express my deep grati-

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