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The RAS of Work and Play

A successful and well-attended International Conference on Robotics and Automation (ICRA) has just ended in Kobe, and I am writing this column in mid-May during my return flight from Japan.

The master in the art of living makes little distinction between his work and his play, his labor and his leisure, his mind and his body, his education and his recreation, his love and his religion. He hardly knows which is which. He simply pursues his vision of excellence in whatever he does, leaving others to decide whether he is working or playing. To him, he is always doing both.

The above quote, known as "The Zen of Work and Play," synthesizes the collegial spirit, animating many of the volunteers serving our society. The recent ICRA has been inspired by this credo: a solid and sound technical program, a rich and lively social program. Beyond the



hard work of the organizing team led by Kazuhiro Kosuge (general chair) and Katsushi Ikeuchi (program chair), a warm touch of color was provided by the double performance of the Robotics and Automation Society Officers Rock (RASOR) at both the banquet and farewell party: an audience of more than 1,000 for a group at their second gig on stage!

Formed a year ago in Pasadena at the past ICRA, the band stars some of the hardest workers (and players) in our community: three top editors Alessandro De Luca (vocal and guitar), Seth Hutchinson (bass), and Stefano Stramigioli (drums) accompanied, this year, by our guest Kolja Kühnlenz (keyboards). Certainly, their rolling music is a bit distant from the zen meditation and minimalism. Yet, they are a testimony that the dichotomy between being a respectable researcher and behaving like a conference partygoer is only a fictitious belief. This applies not only to our students but also to the senior fellows of our community, like the

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roboticists of 1959, who celebrated their 50th anniversary during the farewell party to the notes of “Born to Be Wild”!

In the remainder of this message, you will read about the activities promoted by our boards, as contributed by the respective chairs. After several Society-sponsored thematic conferences in the summer, including the International Conference on Automation and Science Engineering in Bangalore, India, the next general appointment in the fall will be the International Conference on Intelligent and Robotic Systems (IROS) in mid-October in Saint Louis, Missouri, cosponsored by our Society, the IEEE Industrial Electronics Society, and the Robotics Society of Japan (RSJ). It is my wish that attendance figures at these conferences will be as good as ICRA, despite the current economic downturn.

Conference Activities Board (CAB)

Our vice president (VP) for conference activities, John Hollerbach, evidences how ICRA banquets have evolved over the years from being jam packed with presentations to becoming primarily social affairs. The president’s report, awards, banquet speaker, and video presentations all used to be made at the banquet while people were eating and drinking. Conference organizers sat forlornly on one side of a long table on a dais facing the audience, as if it were medieval times when noblemen sat against a wall to avoid getting stabbed in the back. Noise levels continuously rose during the evening as wine took its effect, and attention was inevitably lost.

Practically, all such activities have been moved to the day’s program. Keynote talks replace sessions, and awards are presented at a luncheon. Conference organizers now sit at round banquet tables on the floor just like everyone else. Dance and music replace speeches. For ICRA 2010 in Anchorage, Alaska, the banquet will rise to a new level of sociability by taking place on a train. Participants will enjoy food, drink, and conversation with nearby companions (unless one wishes to locomote the length of the train), while enjoying the specular scenery and the long daylight hours.

Paper presentations will always remain the backbone of ICRA, but meeting people from around the world and having ample opportunities for social discussion are just as important. The structure of ICRA and other robotics conference has adapted to that realization.

Financial Activities Board (FAB)

The IEEE Robotics and Automation Society (RAS)’s overall financial situation has been affected by the global financial crisis, as pointed out by our VP for Financial Activities, Ian Walker. The Society’s reserves declined by 40.9% of their 2007 value in 2008. This was almost entirely due to investment losses. Additionally, the operations aspect of RAS operations (all activities excluding investments) incurred a deficit of US\$4,200 in 2008.



The RAS financial management team continues to closely monitor the situation. The goal is to keep RAS on a sound financial footing in the presence of ongoing global financial uncertainties.

Promptly after the Administrative Committee (AdCom) meeting, the RAS’s first-pass budget for 2010 has been submitted to the financial analyst at the IEEE, including publication rates, conference budgets, and all new activities that have financial impact. Because of unfavorable investment returns across the IEEE in 2008, budgeting mechanisms by which RAS have funded new initiatives in recent years are significantly restricted in 2010.

Industrial Activities Board (IAB)

The RAS in partnership with the International Federation of Robotics (IFR) hosted a successful industrial forum as part of ICRA 2009 to present the IEEE/IFR Invention and Entrepreneurship (IERA) Award, under the leadership of our VP for Industrial Activities, Alex Zelinsky. The details of the winner of the award are presented in the “Society News” column on page 12 of this issue of *IEEE Robotics and Automation Magazine*.

The IAB, led by Hadi Moradi, has been working to collect and publish technology road-map materials for robotics and automation from countries around the world. Road maps inform the general public as well as the government policy makers and technology developers about the likely future direction of robotics technologies.

Member Activities Board (MAB)

As reported by our VP for Member Activities, Alícia Casals, the number of members of the Society is slowly but continuously increasing as well as the number of Chapters; a good signal for RAS, although more efforts should help to make RAS stronger.

Grants for five Chapters were approved to promote activities in the coming months. Chapters are encouraged to apply for a grant twice a year, with the aim to promote robotic activities and increase the Society’s public visibility.

ICRA 2009 was again the scenario of new RAS members’ activities. The Student Activities Committee organized a new initiative: “The Future of Robotics Student Innovation Session,” a brainstorming session broken in groups to debate on prospective robotics in a wide number of fields. This successful event gathered 75 students who participated quite actively, and the reports on the work of each group are in the “Student Corner” column on page 22 of this issue of *IEEE Robotics and Automation Magazine*. Additionally, the mentoring program started in 2008 continues its activities, being the third edition held again in this new occasion. And yet, for the next IROS in Saint Louis, a new initiative will be launched: a more social activity, an international soccer tournament.

ICRA 2009 hosted the second Robot Challenge competition. Ten teams from five countries participated with their robots in a background located in a visible area for all ICRA participants, which make this activity an attraction point for ICRA attendees.

The Education Committee is preparing a call to promote the organization of Summer Doctoral Schools as a distinctive feature of RAS. The goal is to encourage potential applicants to organize schools on emerging and strategic topics of interest for Ph.D. students around the world. This new orientation of RAS supporting summer schools is expected to involve more RAS members and achieve a wider geographical distribution.

Publications Activities Board (PAB)

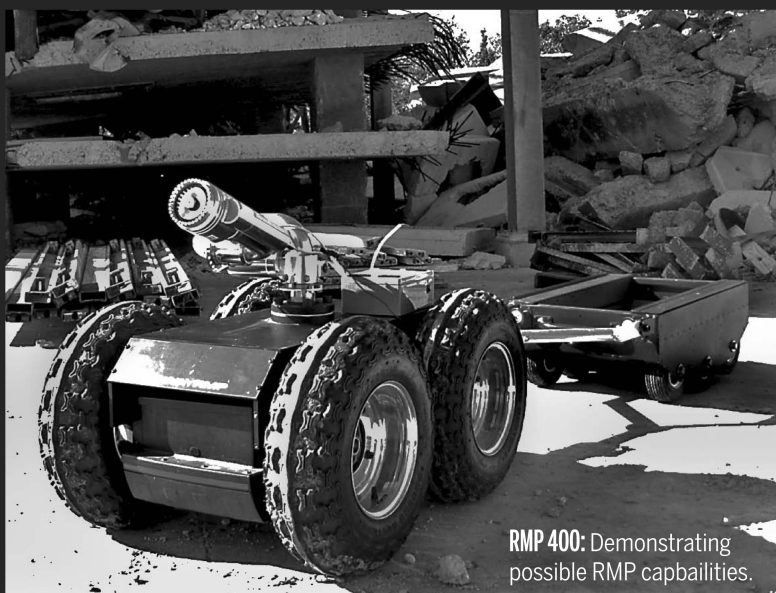
The RAS AdCom in its 17 May meeting in Kobe, Japan, made two major decisions relating to publications, according to Peter Luh, our VP for Publication Activities. First, to benefit members at this difficult economic time, the 2010 subscription rates for *IEEE Transactions on Robotics (T-RO)* and *IEEE Transactions on Automation Science and Engineering (T-ASE)* or the Transactions Package (subscribing to both) are all maintained at their 2009 levels. Second, the RAS Member Digital Library (SMDL) will be established starting January 2010. It will allow subscribing members to have online access through *IEEE Xplore* (<http://ieeexplore.ieee.org/>) to articles from *T-RO*, *T-ASE*, all of the numerous RAS-sponsored or -cosponsored conferences, whose proceedings are in the *Xplore*, and of course, *IEEE Robotics and Automation*

Magazine. Again, to benefit members, this electronic-only SMDL will be offered at a very reasonable rate of US\$40 (or US\$20 for a Student Member), only slightly above the electronic Transactions Package rate of US\$30 (or US\$15 for a Student Member). We would therefore strongly encourage those Members or Student Members who do not have access to IEEE/IET Electronic Library (IEL) through institution subscriptions to subscribe to this extremely valuable SMDL during their membership-renewal process. If you are not yet a Member but have to pay a certain price to download each article, you may want to join RAS and subscribe to SMDL. Finally, we strongly encourage you all to submit papers, to download papers from *Xplore*, and if you want to have copies of the journals on your personal bookshelf, please subscribe to both print and electronic at the 2009 rates (US\$68 for both transactions for a Member, and US\$34 for a Student Member).

Technical Activities Board (TAB)

Our VP of Technical Activities, Ken Goldberg, would like to thank associate VPs Eugenio Guglielmelli and Yasuhisa Hasegawa for their excellent work in coordinating and chairing the TAB meeting and lunch for Graduates of the Last Decade (GOLD) at ICRA in Kobe.

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Reproducibility of experiments is the hallmark of the scientific method.

Congratulations to the winners of the Most Active Awards:

- ◆ *Most Active Technical Committee (TC):* Micro-Nano Robotics and Automation
- ◆ *Most Active Distinguished Lecturer:* Hugh Durrant-Whyte.

Dick Volz, director of IEEE Division X, suggested that RAS proposes some IEEE milestones from robotics and automation. Since there is a significant application process, we have initiated a wiki discussion on the RAS Web site to get input from RAS members on key milestones in our field. Please submit suggestions and comments at http://wiki.ieee-ras.org/research_milestones.

Belief in a particular natural law cannot have a safer basis than unsuccessful critical attempts to refute it.

Karl Popper

Reproducibility of experiments is the hallmark of the scientific method. Reproducibility allows new methods to be evaluated by

third parties who are less vulnerable to the natural unconscious bias of any scientist who invents a new approach or model. Reproducibility can also reveal subtle errors in data collection. Perhaps, most importantly, reproducibility encourages systematic progress, where alternate models are directly compared under independent conditions.

In Kobe, TAB and AdCom approved a new TC: Performance Evaluation and Benchmarking of Robotic and Automation Systems. As cochairs, Raj Madhavan, Angel de Pobil, and Elena Messina point out that our field can benefit from benchmarks and metrics that will facilitate reproducible and repeatable comparisons of research results to minimize duplication, speed improvements, and expedite technology transfer.

For details on how to join this TC to submit metrics or benchmarks, and for information on all other TCs and Distinguished Lectures, please visit the TAB Web site at <http://www.ieee-ras.org/technical>.

Electronic Products and Service Board (EPSB)

Our EPSB chair (and editor-in-chief of the magazine), Stefano Stramigioli, reports that the developments for the Web site of our Society continue uninterrupted, thanks to our great development team of Olaf van Zandwijk and Hubert Flisijn. The statistics that are generated via Google indicate that the usage is still increasing as the greatest hit of our calendar system. The usage of RSS feeds is also increasing, with currently 200 subscribers. We are working on collecting all conference Web sites within our domain, and in the future, we will work to have an automated system to create templates for upcoming conferences, to ease the burden of conference organizers, and to establish a similar look and feel and consistent data for our conferences. Furthermore, a new system called *time machine* allows the volunteer working for the Society to see a snapshot of the Society at any instance of time. This is a very handy feature for administration purposes. The system was hosted into a private server, and this greatly improved the speed of response, which encountered some problems last year. We also have created a LinkedIn group for our Society, which can be reached at <http://www.linkedin.com/groupRegistration?gid=1888416>.

In the future, we will improve the awards management system, the aforementioned conference templating, and the meeting scheduler. Any comments and suggestions are always greatly appreciated.

Members are warmly encouraged to provide feedback on all the activities promoted by our Society. Please do not hesitate to contact myself, any of the officers, or Rosalyn Snyder. Contact information for RAS officers and committee chairs is on our home page.



Bruno Siciliano
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RAS President 2008–2009

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