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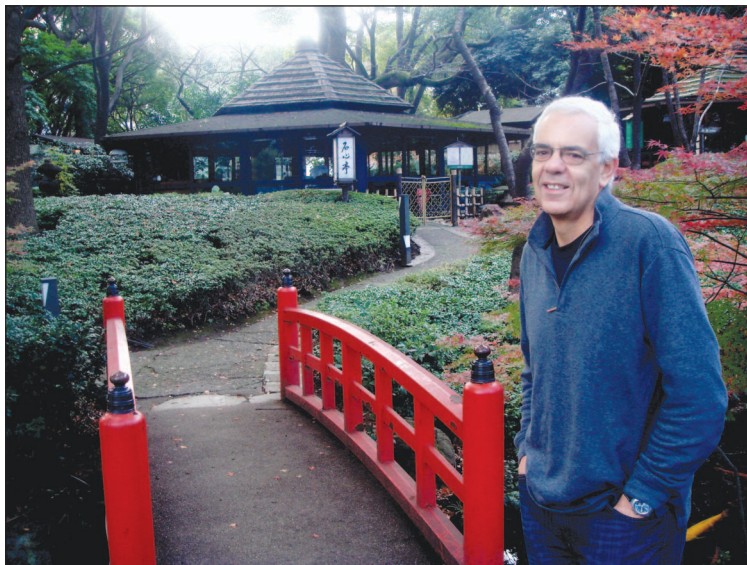
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Building a Bridge to the Future

At the end of a busy autumn on the road, I am writing this column in Tokyo while attending the Program Committee Meeting of the IEEE International Conference on Robotics and Automation (ICRA), which will take place in Kobe, Japan, 12–17 May 2009.



As is our custom, you will find the periodic updates from our boards. A common thread of several initiatives promoted by our Society is the role of our students. The Society's student membership has increased and so has their attendance at our conferences, despite the current economical crisis. More events are being organized, such as competitions, get-togethers, and parties, where students can find useful opportunities for socializing and networking, meeting young graduates and even senior scientists, who enthusiastically attend such gatherings. Our School of Robotics Science, a joint program with the International Federation of Robotics Research (IFRR), has now reached its fifth edition and has been a success from the beginning. Students' active participation at various committees, travel support, awards, and, more recently, Ph.D. fellowships demonstrate the interest and commitment of our Society as the best investment for our future. I deeply wish this trend will continue in the years to come, with more and more students enriching our Society.

Conference Activities Board (CAB)

One of the most contentious and misunderstood aspects of conference budgeting is the apparent requirement for a 20% surplus. Actually, this surplus is suggested but not required. IEEE Robotics and Automation Society (RAS), not the IEEE, approves the budgets. It is possible to budget for less, and indeed ICRA'08 budgeted for a 10% surplus.

The IEEE has been taken to task for using the term *surplus*, which is poisonous to many people, because it suggests that the IEEE is making money out of them. For this reason, companies are loath to donate to conferences. However, the IEEE is a nonprofit organization and, therefore, cannot make money. A better term is *overhead*, which we all understand and expect

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to pay. The IEEE and the Societies need overhead from conferences (as well as from other sources) to function. Nowadays, Societies tend to explicitly charge overhead to conferences rather than dictate surpluses. Therefore, it is appropriate to view surpluses (overhead) as the cost of doing business.

Another reason for budgeting a surplus is as a cushion against unknown costs. Registration fees have to be set before all costs are known. Perhaps, the biggest unknown cost is the number of student registrations. A number of RAS-sponsored conferences subsidize student registration fees as a wise investment in the future. Typically, students pay about half of regular registrations. This subsidy is covered by increasing the regular registration fees. If one budgets for 30% students, but it turns out to be 50% students as for IROS'08, the effect on the budget is significant. Therefore, a conference almost has to budget for some surplus as a hedge, as pointed out by John Hollerbach, our vice president (VP) for conference activities.

Everyone wants low registration fees, but there is a difficult tradeoff to make between sponsoring activities, which foster interaction and make the conference more pleasant (extra receptions, dinners, and special events), versus the impact on the budget. When looked at on a per-person increase in the registration cost, often these specials are not very expensive.

In reality, the registration fee is a small percentage of the trip cost. IEEE conference services estimate that the average registration fee is 25% of the trip cost. For some RAS conferences, this proportion is much less. A tendency to overfocus on the registration fee is a well-known phenomenon in the conference business. In reality, it does not matter much whether the fee is US\$400, US\$450, or US\$500, as a proportion of the total trip costs. The cost of registration, in combination with the apparent surpluses of conferences, is a psychological flash point. Hopefully, this discussion will lead to an understanding of why surpluses should be less of a concern and not a barrier to organizing robotics conferences through IEEE.

Financial Activities Board (FAB)

Our VP for Financial Activities, Ian Walker, reports that the transfer of uncommitted 2008 funds to the IEEE foundation to endow several RAS awards in the future was successfully completed in December. The RAS financial team is monitoring the effects of the current global financial situation on IEEE's financial operations. The impact on the Society's finances in 2009 is not clear at the time of writing.

Industrial Activities Board (IAB)

The IEEE/IFR Invention and Entrepreneurship Award for outstanding achievements in commercializing innovative robot and automation technology will be presented as part of the IEEE/IFR Joint Forum on innovation and entrepreneurship in robotics and automation, which will be held in conjunction with ICRA'09, in Kobe. The award that has grown in stature has attracted an excellent number of submissions. The finalists will present their cases at a panel of expert judges during the forum. The winner will be

announced at the conclusion of the forum and will be awarded by Alex Zelinsky, our VP for industrial activities.

IAB members Jeanne Dietsch and Raj Madhavan have worked with the magazine editors to help produce a "New Products" column that provides in concise form a list of the latest robotics products and innovations from press releases and other sources. This will be a regular part of our magazine.

Member Activities Board (MAB)

The participation of students in MAB started successfully in 2006. In this second term, under the leadership of our VP for conference activities, Alicia Casals, the activities promoted by students have been continuously increasing. The last call for the selection of the new students' cochairs of the MAB Student Activities Committee (SAC) to serve the Society in 2009 has had a response of six new applications coming from six countries worldwide. This participation shows the students' involvement in the Society activities. SAC has just started a new column in *IEEE Robotics and Automation Magazine* to keep members informed of their activities.

The second edition of the Robot Challenge will be held at ICRA'09, in Kobe. The challenge will consist of three specific events, just like last year. The goal of ICRA Robot Challenge is to make this event accessible to all members of the ICRA community, to integrate it tightly with the technical aspects of the conference, and to encourage as many members as possible to participate with their robots. A call for contributions in a discussion and the information related to the event is posted at <http://icra.wustl.edu/>.

As announced in the "Education" column, a robotics courseware Web site has been launched promoted by MAB Education Committee. The course site is <http://www.roboticscourseware.org/>.

The new edition of the IEEE-RAS/IFRR School of Robotics Science is devoted to medical robotics and computer-integrated interventional systems in January 2009. Besides IEEE-RAS and IFRR, the school is cosponsored partly by the U.S. National Science Foundation and Johns Hopkins University at <http://www.cisst.org/wiki/MRCIIS>.

Publications Activities Board (PAB)

Recently, we have seen an increasing number of plagiarism cases. Plagiarism is defined by as the use of someone else's prior ideas, processes, results, or words without explicitly acknowledging the original author and source. For details, please see *The Publications Services and Products Board Operations Manual*, at http://www.ieee.org/portal/cms_docs_iportals/iportals/publications/PSPB/opsmanual.pdf.

Plagiarism is unacceptable and is considered a serious breach of professional conduct, with severe ethical and legal consequences. In addition, if an author uses his or her own previously published or submitted material as a basis for a new submission, he or she should cite the previous work and clearly indicate how the new submission differs from the previous work. Authors who do not properly cite their previous work are also subject to corrective actions. For details, please see "Introduction to the Guidelines for Handling Plagiarism

Complaints,” at http://www.ieee.org/web/publications/rights/Plagiarism_Guidelines_Intro.html.

To further raise the quality and impact of our publications, streamline the review and publication processes, and increase the impact factor, and the number of *IEEE Xplore* downloads from institution subscriptions, please contact our editors-in-chief or VP for publication activities Peter Luh.

Technical Activities Board (TAB)

Ken Goldberg, VP for Technical Activities, announces a new Technical Committee (TC) on energy, environment, and safety issues in robotics and automation, initiated by Toshio Fukuda and T.-J. Tarn. This TC reflects the increasing impact of green global issues on robotics and automation and the potential for our field to contribute constructively toward solutions. The new TC will address topics such as environmentally friendly designs, hybrid systems, environmental monitoring, new energy sources, energy-efficient systems for robots, and automation systems. Details are at the RAS TC website at <http://tab.ieee-ras.org/>.

The IEEE is organizing a series of events to celebrate its 125th anniversary and will highlight emerging research from two of our TCs, haptics and robot learning. Haptics TC cochairs Matthias

Harders, Marcia O'Malley, and Yasuyoshi Yokokohji will work with IEEE staff and are also working with Hong Tan to coordinate the many worldwide haptics conferences. Robot learning TC cochairs Jan Peters, Jun Morimoto, Nicholas Roy, and Russ Tadrake will work with IEEE staff on the anniversary and are also preparing a special issue for the *Autonomous Robots* journal.

We welcome all IEEE Members to participate in RAS TCs and to invite RAS distinguished lecturers for events. For details, please visit <http://goldberg.berkeley.edu/vpta/>.

As 2008 has come to a close, the first year of my presidential term has been bustling, with more than 200 volunteers actively involved in the various Society committees and boards, and thus, I believe I can say “the gradient is kept”! If you have any comments or—even better—if you wish to be involved, please contact me, any of the officers, or Rosalyn Snyder, our Society administrator. Contact information for RAS officers and committee chairs is on our home page.

Bruno Siciliano
siciliano@ieee.org
RAS President 2008–2009

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