The Visible Values of Volunteering in the Hidden Technology World

It is a great honor and privilege to serve you as the 52nd IEEE Control Systems Society (CSS) president, during what surely will be a productive 2018. It is a great thrill to have been selected, and, hopefully, my service will live up to the high expectations set by previous presidents. As I embark on this duty, I am especially thankful for the work of all my predecessors in this and all other CSS volunteer roles. Thanks to the long-standing tradition of distinguished service, the IEEE CSS is such a welcoming house for our professional lives.

Over the years, the CSS has afforded all of us an efficient set of venues to present and publish our work and to have it promoted and recognized. In this welcoming house, our research has flourished in the past and will continue to do so in the future. As I write this first column for 2018, I wish to address it to our younger CSS members who may not be familiar with all of the Society's activities and the value and meaning of volunteering for CSS. See the companion column, "Getting Involved in the IEEE Control Systems Society," on page 8 for further discussions on volunteering for CSS.
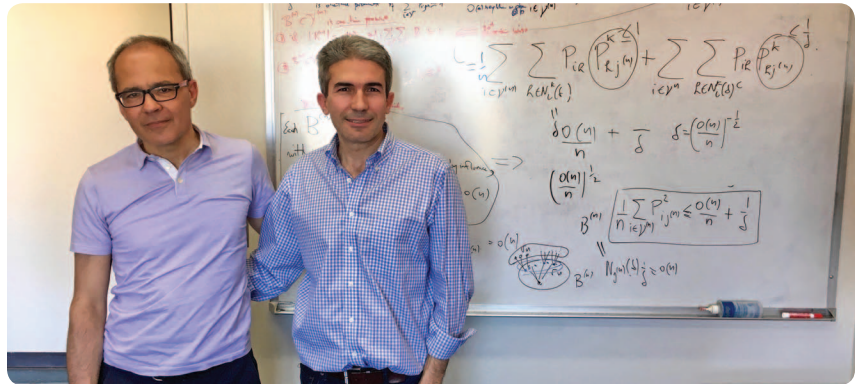
MY VOLUNTEER WORK FOR CSS

My history of service to the CSS has been extremely educational for me and, in infinitesimal part, hopefully effective in helping the Society provide ever-improving service to our members. Here is a synopsis of my activities with small editorial comments.

My very first exposure to volunteer work for the CSS was the Conference Editorial Board (CEB), from September

1999 through May 2005 (I have been a member of IEEE CSS since 1994). Those were great years of growth for our conferences, and the CEB is clearly an example of our best practices, later adopted by other IEEE Societies.

I then served as chair of the Technical Committee (TC) on Manufacturing Automation and Robotic Control from 2004 to 2008. CSS TCs provide a wonderful opportunity to network, conceive and develop new initiatives,

(From left) Fabio Fagnani and Francesco Bullo in the middle of a technical discussion in May 2017, during Fabio's visit to the University of California, Santa Barbara, as the 2017 Peter Kokotović Distinguished Visiting Professor.

(From left) Mark and Lila Spong carefully review one of Francesco Bullo's latest theorems during the 2017 Workshop on Emerging Applications of Control and System Theory, held at the University of Texas-Dallas, September 28–30, 2018. Photo courtesy of the workshop organizers.

and collaborate on a broad spectrum of topics.

I then had the opportunity to serve as an associate editor for *IEEE Transactions on Automatic Control* from 2005 to 2008. Our transactions, which started as *IRE Transactions on Automatic Control* and now in its 62nd year, remains our most visible publication and highest impact activity. I was also program chair for the 55th IEEE Conference on Decision and Control (CDC) in Las Vegas, Nevada, in December 2016. One of our most important duties was to maintain the tradition of excellence of our journals and conferences in the face of the sweeping changes affecting the publishing industry.

I was elected a member of the Board of Governors for three terms (2007–2009, 2011–2013, and 2016–2018). Not everyone fully appreciates the fact that the CSS is a democracy (surely imperfect, despite our efforts), and that the IEEE is a not-for-profit entity. Another little-known fact is that the yearly meetings of the CSS Board of Governors at the American Control Conference (ACC) and the CDC have an open door.

Finally, I served on the CSS Executive Committee as vice-president for Publications (2013–2014) and Technical Activities (2011–2012). The Executive Committee is the venue where proposals for new conferences and journals and a broad range of initiatives are debated and prepared for revision and approval by the Board of Governors.

ADVANTAGES AND DISADVANTAGES OF VOLUNTEERING

Clearly, we all are invested in the peer-review system. Our technical world would simply not function without our collective will to review each other's technical submissions. There is much to be said about the future of paper reviewing, but today I would like to focus on the broad set of CSS volunteering roles, including serving as an associate editor, helping with the organization of a conference, and participating in a TC, among others.

Here is my take on the advantages and disadvantages of volunteering for a professional society. Let's play devil's advocate and start with the disadvantages. The first and most obvious drawback is the time and energy commitment—a simple suggestion is to be organized with your time, set boundaries, and do not overpromise. A second drawback lies in the fact that some tasks are unusual, unexpected, and perhaps challenging.

On the other hand, I believe there are many compelling reasons to enthusiastically volunteer your time and expertise to a just cause, like the CSS. First, volunteering provides outstanding opportunities for personal growth. You'll develop new professional and personal skills (that is, you'll have opportunties to work in teams, identify and build consensus around workable solutions, and devise and execute plans), all while contributing to valuable goals. You will also have a chance to build a professional network of like-minded peers to help in your broad professional activities and research. You will get to know colleagues working in different technical areas and enrich your professional life. To put it simply, many people find it rewarding to give back to a community of peers. Personally, I suspect that volunteering and social engagement with like-minded peers may even have health benefits.

VOLUNTEERING FOR THE CSS

While IEEE CSS volunteers run a broad set of activities, the most visible priorities of the Society are our publications, conferences, awards, and technical and member activities. All of our journals are among the most prestigious in the field, are top ranked in terms of citation counts, and employ numerous IEEE best practices. Most importantly, CSS journals are offered without any intent of profit (as the IEEE is a not-for-profit organization) and with author-friendly copyright requirements. Our top conferences provide outstanding venues for technical discussions and professional networks; they are almost exclusively volunteer run and have reasonably priced registration fees. Similar positive words can be said about our highly visible awards, which provide a venue to promote our research achievements, and our broader set of activities, including the Outreach Fund, the Women in Control Committee, and support to local Chapters.

It is important to emphasize and remember how complex and time intensive it is to run all of these activities. For example, for a fully fledged conference with well over 1000 attendees like the 2017 ACC, one can count 14 volunteers on the Operating Committee, 36 members on the Program Committee, and 231 members of the 2017 CEB, among countless other volunteers who helped before, during, and after the event. It says a lot about us, as a Society of like-minded, conscientious colleagues, that we do not outsource the organization of our conferences to for-profit entities.

A more complete understanding of the full range of volunteer work performed on behalf of CSS is given by the Society's roster. This document can be found via an online search with keywords "IEEE CSS roster" on our website http://www.ieeecss.org (click "Governance" and then "CSS documents"). It is useful to clarify an important point here: the need to develop deep and broad institutional memory is one of the factors driving the way the Society is organized. Volunteers benefit from being exposed to the multitude of policies and practices required to run complex events, such as conferences and journals, and interface with IEEE.

To the young scientists reading this column, please give CSS a chance. There is always an opportunity and a need for your engagement. The Society always needs to renew itself (most roles within CSS have term limits) and let the next generation of volunteers lead. Thank you all for your past and future service!

Francesco Bullo