… Like a Lizard Drinking

The governance side of the IEEE Control Systems Society (CSS) is where the administrative CSS machine is maintained, greased, and occasionally refurbished. The heart of the beast is the Executive Committee (*ExCom* for the epithetically gifted) comprising the president (yours truly); past-president (Francesco Bullo); president-elect (Anu Annaswamy); director of Operations (DoO) (Jorge Cortés); and the vice presidents for Technical (João Hespanha), Financial (Jing Sun), Publication (Thomas Parisini), Conference (Faryar Jabbari), and Member (Magnus Egerstedt) Activities. The major decision-making body of the CSS is the Board of Governors or, affectionately, the *BoG.* If you are into recursion, the BoG appoints the ExCom, and ExCom then becomes a subset of the BoG, a strict subset, so the gain is less than one.

Assuming the constitutional changes promulgated in the August 2019 issue of *IEEE Control Systems Magazine* have passed, currently the CSS BoG has 33 members: 18 elected by the membership for staggered three-year terms, the nine ExCom members, and six appointed for one-year terms. The publication editors-in-chief and the conference general chairs are rather free-range—I did *not* say feral—but report via the ExCom to the BoG. All of this happens under the purview of the IEEE and its operational methodology to ensure that a professional society run by volunteers is able to successfully navigate its corporate mission as a not-for-profit company registered in New York. These details matter, sometimes in arcane ways.

Why bring this up now, when we could have skipped to the funnies inside the back cover? Well, at the time of writing (June), the midyear biannual BoG meeting is coming up at the American Control Conference in Philadelphia. At the time of publication, it will be over. So this is a time of great work behind the scenes. The ExCom is *flat out like a lizard drinking*: preparing materials and vetting proposals for consideration by the BoG. In mid-May, the ExCom (together with the editors-in-chief) met for two days in the mid-Atlantic area of the country to deliberate on and refine issues for decision by the BoG. The midyear meeting includes the approval of the 2020 CSS budget, for example. The larger part of the conference approvals and editorial board appointments are also addressed.

In a volunteer organization such as ours, the human resource demands are significant and, well, voluntary. The CSS is indeed fortunate that it can maintain such technical prowess and effective management with such a willing and able workforce from the membership. However, it does require coordination, deliberation, and negotiation, which fall to the BoG and, mostly, the ExCom. This work is integral to the technical health of the CSS and enormously personally rewarding.

These activities do not take place in a vacuum, as I previously hinted. The IEEE provides a milieu within which the CSS activities (think publications and conferences, but also the Distinguished Lecturer, Fellow, and Awards Programs, Young Professionals; Women in Control; and regional activities) can prosper under the corporate professional guidance of the IEEE staff and the operations of the many sibling Societies, Councils,

and initiatives run by the volunteers. The interface with the IEEE also falls to the ExCom, which serve as conduits of policy and capability from the IEEE headquarters. Of course, this covers the gamut of the CSS activity.

The IEEE is governed by boards and committees also largely populated by volunteers but not "so on ad infinitum." Authority stops at the IEEE Board of Directors, who are volunteers trickling up from the Societies, for example, CSS Past-President Steve Yurkovich, who served as a recent director. The technical side of the house is controlled by the IEEE Technical Activities Board (TAB), consisting of all of the presidents of the Societies and Councils. The chair of TAB is the IEEE vice president for Technical Activities and serves as an ex officio member of the IEEE Board of Directors, which is never referred to as the *BoD.* TAB meets three times per year and is the proving ground for major initiatives that filter down to the Societies. In the last issue, I wrote about the open access scholarly publishing initiatives. TAB is where a cogent response to such ventures is first formulated. Indeed, TAB is sometimes a battleground of ideas and proposals, no matter the unwieldy nature of such a large group, which extends to its own constituent committees. The Societies' voice on policy matters (for example, open access and response to political embargoes on companies or countries of members) is heard first at TAB.

Locally to the CSS, a core proposal right now for the BoG via the ExCom is to consider increasing the one-year presidential term to two years. The reasoning is simple: it allows the president to be more effective in TAB on behalf

of the CSS membership. An organization as complicated and varied as the IEEE has a serious learning curve, and a one-year term does not suffice. There are structures and procedures to understand and relationships to develop. Indeed, roughly two-thirds of the IEEE Societies have two-year terms for their presidents. The CSS had two-year terms until 1978. We have not located the records explaining the move to one-year terms. I should mention that neither I, nor anyone already selected on the basis of a one-year term, would be automatically considered for a two-year term.

With the title of this article and its early paragraphs so clearly pointing to the workload of the ExCom and the president, it is apparent that some level of administrative support is needed concomitant with extension of appointment. Here, we can again take a page from the books of the other Societies, which engage the IEEE staff to help manage them and provide onsite navigation of the corridors of the IEEE and its keepers of protocols and methods. The CSS presidents have really been stoics who dauntlessly managed the workload solo. Yet, we routinely provide administrative and editorial support to editors-in-chief of our publications and allow general chairs of conferences to employ professional conference organizers.

Aside: As general chair of the 2000 Conference on Decision and Control in Sydney, I was one of the first to use a professional conference organizer and, therefore, able to show that allowing them to assist in negotiations resulted in significant, revenue-neutral support.

Since early 2019, we have been conducting an experiment by providing 50% administrative support at the IEEE for the DoO, Jorge Cortés. Allison Fleisher works for the CSS under the supervision of Jorge but onsite at the IEEE headquarters in Piscataway, New Jersey. This has worked out splendidly so far, and Allison has helped the ExCom adopt the new fast reimbursement system and is providing great organizational support for ExCom and BoG meetings. Earlier DoOs had assistance at differing levels, using local employees funded by the CSS. The move to the IEEE has been very efficient and cost-effective. It has allowed us to consolidate and formalize several previous hourly appointments. However, the payoff lies in increased efficacy in releasing people to focus on their strategic and organizational thinking, something control people are good with.

I was tempted to apologize for taking up your valuable time talking about management and workload matters rather than reptilian imbibition. However, an appreciation of how the CSS and the IEEE work is key to involvement and participation in these activities. Knowledge is power. If this is the truism underpinning the consideration of two-year presidential terms, then it must hold equally well for the CSS members. For the geeks and control freaks, without a state-space model, how could you expect state estimation and control … followed by the IEEE and then world domination, I know. This is important because having effective energetic volunteers driving the Society forward is vital to our prosperity and nimble negotiation of operational hurdles.

The CSS is a technical (not an administrative) Society. However, to be effective, it is necessary to understand the operations side in principle. Returning to the lizard theme of this article, my favorite social lizard is Godzilla (*Gojira* in anglicized Japanese), who represents the contemporary social conscience and appears on the scene as necessary to battle hideous monsters. That is a good way to think of the CSS leadership. This lizard now needs a drink.

Bob Bitmead

Ten Simple Rules Towards Healthier Research Labs

Rule 1: Promote the well-being of your lab members
Rule 2: Let people set their own schedules
Rule 3: Gratitude is the sign of noble souls
Rule 4: Treat your lab members as your teammates
Rule 5: Create a collaborative environment within your lab
Rule 6: Remember that every lab member is unique
Rule 7: Respect working hours, public holidays, and vacations
Rule 8: Give credit where credit is due
Rule 9: Destigmatize failure and celebrate success
Rule 10: Promote the professional development of your lab members

—Fernando T. Maestre, "Ten simple rules towards healthier research labs," *PLOS Computational Biology*, vol. 15, no. 4, e1006914, April 11, 2019. doi: 10.1371/journal.pcbi.1006914.