SENIOR EDITORSHIP—
“IMPACTS” SECTION

“Impacts” explores the socioeconomic aspects of CE, which is quite a wide area to cover. Katrina Michael is the acting senior editor for this section, but this section can be further developed if we can find the right person. It requires someone with an interest in building an interdisciplinary bridge between engineers and socioeconomic researchers. If you feel that person is you, and you can meet the challenge to manage and further develop our “Impacts” section, please reach out to us.

SENIOR EDITORSHIP—
SPECIAL ISSUES

This role requires a senior editor to solicit, manage, and assist guest editors and AEs to bring more of our calls for articles to a successful conclusion. It will also require working with some of our conference committees to find and develop conference activities that will lead to special sections and special issues of *IEEE Consumer Electronics Magazine*. If you are interested in this new and challenging role, please contact me.

SENIOR EDITORSHIP—“SOAPBOX”
AND “CHAMPIONS OF CE”

“Soapbox” and “Champions of CE” are two other special categories of articles we have established over the first four volumes of *IEEE Consumer Electronics Magazine*. Again, this role involves significant work to solicit and shepherd new articles.

If you are familiar with our publication, then you most likely will have read both of these sections. If these articles have inspired you, then please consider this challenge.

ASSOCIATE EDITORSHIPS

A limited number of AE positions are available. A key mission for AEs is to help increase the number of articles submitted to *IEEE Consumer Electronics Magazine* for peer review. Efforts to build special sections and/or special issues of the magazine will be a key responsibility of these roles. A senior editor and the editor-in-chief will provide support and mentor people in these roles. These positions are open to IEEE Members who are willing to take on these roles and responsibilities.

ROLES AND RESPONSIBILITIES OF AEs

Each AE will take on the role of representing a specific technical field or interest group within the scope of CE. Their responsibilities are twofold. First, they will have the principal responsibility to solicit articles for peer review in their selected field with a target to achieve at least four submitted papers per year. Second, each AE must work on at least one call for articles during his or her first year, concluding with a special section or special issue in his or her second year of tenure.

To become an AE, you should first write to me (dr.peter.corcoran@ieee.org) specifying the following:

1) What field of interest within CE would you like to represent?
2) Provide a plan to solicit content for the peer-review process; please make sure this explains the different measures that you feel are needed to reach out to different communities in your chosen field of interest and how you will go about this outreach program.
3) Provide a plan to outline at least one call for articles you intend to pursue as AE; include a timeline indicating what conference(s) you would reach out to and what activities you would aim to organize to complement your call for articles and bring home a special issue or special section of the magazine.

Please be specific in the details of your planned actions and any associated timelines. If you need some funding to implement these plans, please outline budgetary requirements.

Boston CE Society–SSCS 2015 Spring Meeting

The Boston Chapter of the IEEE Consumer Electronics (CE) Society held its spring meeting on 6 May 2015. The meeting was cosponsored by the IEEE Solid-State Circuits Society (SSCS) and was held at the headquarters of the Massachusetts Institute of Technology (MIT) Electrical Engineering and Computer Sciences (EECS) Department in Cambridge, Massachusetts. Here is the story of how this meeting was conceived, developed, and implemented.

DEVELOPMENT

The notion of the Internet of Things (IoT) has caught the imagination of the person in the street who now expects her/his home, car, phone, watch, clothes, toys, etc., to be “smart.” The empowerment that the IoT has brought to the individual makes it key that new product developments have a personal interface. One is tempted to say that, beyond infrastructure and with connectivity, virtually all electronics are personal. The nuts and bolts that enable the IoT will be an unending stream of sensors and controllers that engineers will design. Ideally, these will be microscopic in size, operate and communicate for years on contained or scavenged power, and be able to accommodate communications standards that change over time.
In the summer of 2014, Bob Frankston and I met with Prof. Anantha Chandrakasan, head of the EECS Department at MIT, and asked how the IoT is impacting research and teaching. Additionally, we hoped that he might convene a panel of faculty who would share with our Chapter what they are doing and how they are preparing for the future. He was interested, and we agreed to talk again in the fall to work out details.

When contacted in the fall, Prof. Chandrakasan mentioned that this would fit in very well with his research on very small, very low-power circuits for sensor design. He said that he had worked with the SSCS on this topic at recent conferences. I suggested we ask the SSCS to cosponsor—a most natural association. Prof. Chandrakasan agreed to put together a panel, and I made contact with the SSCS. Bruce Hecht, president of the Boston SSCS Chapter, was immediately enthusiastic.

**AGENDA**

When I contacted Anantha at the end of 2014, he said that he and two of his colleagues, Dina Katabi and Sanjay Sarma, would comprise the panel. This was splendid. It was an all-star team.

Prof. Chandrakasan spoke about silicon systems for the IoT. Dina Katabi, the Viterbi Professor of Electrical Engineering and Computer Science and the director of the MIT Center for Wireless Networks and Mobile Computing, focused on smart homes that adapt to our habits and improve our well-being. Sanjay Emani Sarma, the Flowers Professor of Mechanical Engineering and former chair of research and cofounder of the Auto-ID Center at MIT, discussed radio-frequency identification (RFID) and the cloud.

**SHARON PENG**

In April 2015, while in Los Angeles, I met with Sharon Peng, who was elected president of the CE Society in January. I mentioned our upcoming meeting on 6 May, and she told me that she would attend. Splendid! I asked her to be prepared to say a few words about the IEEE and the Society. A few days later, Sharon wrote to ask whether there would be an opportunity for her to meet with some students. I asked Prof. Chandrakasan, who agreed it was a fine idea, and an e-mail was sent to the student body saying that Sharon Peng, president of the CE Society, would like to meet with students at 5 p.m., prior to the Chapter program.

**FOOD AND LOGISTICS**

When Robin Bradbeer was the Administrative Committee’s vice president of international affairs, she made funds available in support of meetings. The Boston Chapter filed a request, which resulted in a modest bank balance. We decided to provide a light dinner. The Grier conference room (Herbert Grier was the second “G” in the EG&G company founded by the legendary Doc Harold Edgerton) was beautifully appointed, had seating for more than 100, and was equipped with audiovisual capabilities. EECS set up a table in the hallway to greet and document attendees.

Support from the Chapter Planning Committee was helpful in gaining publicity and attendance. Bob Frankston, Mike Bellomo, Matt Hickcox, Nat Sims, and Anthony Vento were present, and Stu Lipoff attended virtually. The support from the CE Society was extraordinary, with Peng and Board of Governors members Bob Frankston, Sunish Gupta, and Nahum Gershon present. Gershon, who is a board representative of *IEEE Transactions on Cloud Computing Systems* and cochair of the Health-Care Workshop Committee, brought his camera, and both he and Bruce Hecht documented the meeting.

**THE STUDENT MEETING**

Peng met with students in the EECS executive conference room and spoke of her career in electrical engineering. She talked about the IEEE and the CE Society and the reasons to be connected with both organizations. Gupta, board representative, Accessibility and Home Health Committee, spoke about his activities in providing accessibility.

I attended and observed that becoming a member is important because some day (for most of us) you will get a letter from the IEEE that you qualify for Life Membership, based on a formula of age and years of membership, and you will then have free membership for life. Telling this to such a young audience got limited traction!

IEEE CE Society President Sharon Peng at the podium.

From left, Bruce Hecht, Anantha Chandrakasan, Dina Katabi, Sanjay Sarma, and L. Dennis Shapiro.
I asked the students why they had chosen EECS and whether they had been techies from the start, as well as basic questions such as had they ever used a soldering iron or ever had a shock. It was interesting to note that those who had shocks, save one, had experienced them in a physics lab with electrostatic experiments and not with electronic circuits or power lines.

**THE PROGRAM**

I greeted the attendees and outlined the agenda, which included greetings from the CE Society and SSCS, words from Peng, and then the technical program. I talked about the CE Society, its inaugural event in November 2011, its previous meeting at Herb Chambers BMW in Boston, and the development of this meeting. I introduced Hecht, who spoke about the SSCS and its history.

Next, I introduced CE Society President Peng. She is from China, and where she received her M.S. degree in biomedical engineering from Xi'an Jiaotong University and her M.S. and Ph.D. degrees in electrical engineering from the University of Minnesota. She worked at Philips and, since 2002, has been with Harman International Industries, where she is now vice president of planning and operations. Peng became president of the CE Society in January, capping a long list of achievements, including being the founding chair of the CE Chapter for the San Fernando Valley and participating in the organization of several conferences, both domestic and overseas.

Peng greeted the attendees and recounted some of the history of the CE Society as well as the several international conferences that it sponsors—the flagship being the IEEE International Conference on Consumer Electronics held in Las Vegas alongside the Consumer Electronics Association’s International Consumer Electronics Show each January. Sharon mentioned IEEE Consumer Electronics Magazine and invited the attendees to submit papers for the Society conferences and magazine and to attend the conferences personally.

Hecht introduced Prof. Anantha Chandrakasan. In his talk “Silicon Systems for IoT,” Chandrakasan told of his research into the design of picosized, picopower circuitry with application to sensor design of IoT systems. He also showed slides of circuits and systems that have been developed. He then introduced Dina Katabi.

Katabi’s talk was “IoT: From Inventory Tracking to Smart Homes.” She presented slides of research that her group is doing on sensors. One was a video showing the detection of the regular breathing of a baby using a radio-frequency sensor on the other side of a wall from the crib. It could provide life signs with no need for a wearable device. She also showed a system for precise indoor location and navigation with a video of the tracking of a person on the other side of a wall walking a spiral pattern.

Sanjay Sarna gave the talk “From RFID to Cloud Things.” His career has been in RFID, and he talked about advances in technology with an emphasis on security. The need for security puts a new dimension in the complexity of tags and transponders and system design. He talked about both passive and active systems, size constraints, and RF environments.

Chandrakasan took the microphone at the end of these sessions and asked for questions. Hecht and I provided brief summations, and I told the audience that the Chapter is interested in supporting IEEE member elevation.

**PERSONAL SUMMATION**

This was a Chapter meeting that was a pleasure to develop, promote, and execute. Clearly, having the resources of MIT was an important ingredient, but there were several lessons learned about the essentials of a successful event, and, in order of importance, they include:

1) a compelling topic
2) charismatic speakers
3) a convenient venue, parking, and transportation
4) cosponsor(s)
5) a company/institution/university connection
6) student involvement
7) food, hopefully free.

If I can be of help in your planning, feel free to contact me at BosCESoc@gmail.com.

—L. Dennis Shapiro,
Chair, Boston Chapter,
IEEE CE Society