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Sign onto Technical Committees

When someone is new to the IEEE Signal Processing Society (SPS) and asks how to get involved with the community, a seasoned member will readily suggest that one starts out by joining a technical committee (TC). True, a TC is the home of a technical community, and it is essential for community building.

Let's turn the clock back about 40 years, to when the first IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP) was held. Back then in 1976, there were five TCs supporting one journal, the one that is now called *IEEE Transactions on Signal Processing*. The TCs were digital signal processing, digital measurement of noise, electroacoustic transducers, speech processing, and underwater acoustics. You cannot recognize some of them now, right? Neither can I! Yes, time flies. What used to be popular or important may not seem relevant now.

Now let's move ten years forward to around 1987, at which time I was still a graduate student. There were seven TCs then: audio and electroacoustics, digital signal processing, multidimentional signal processing, spectral estimation and modeling, speech processing, underwater acoustics, and VLSI for signal processing. At the same time, SPS still had one transaction and one three-year-old magazine.

Let's fast-forward to the present. Now we have 12 TCs. None of them has the exact same name as those mentioned above. All have evolved to where they are today, plus many new disciplines have been added to the SPS family. As it stands now, all 12 TCs support seven Society-owned journals with many cosponsored journals, and two flagship conferences (there will be three by the end of this year) with many workshops and cosponsored conferences.

Our Society has grown a lot over the past few decades to become a multifaceted, international community encompassing various activities. We went from a TC-centric structure to one with major boards on awards, membership, conference, publications, and technical directions. But one thing that has not changed over time but continues to get stronger is the TC as the home of a technical community. Those who work in the same technical areas will join the same TCs to share/exchange their findings and develop a network of community.

But how many people can join a TC? The normal size of a TC in SPS has about 30–40 members. I asked a volunteer leader in this area what the size of the speech community within SPS was. The answer was probably over 6,000 SPS members working in this area. But then, I asked, why are there only 40 members in the speech and language TC? It just does not add up…

For a TC to build a community, it cannot rely solely on a small group of people, especially when the term of a TC member can be as long as six or eight years with consecutive service. If a TC counts on a small group of people for too long, it may create an elite group, while the rest of the community may run the risk of losing touch. In fact, many of our sister Societies allow their members to sign onto any TCs freely.

With such an understanding, during the major Bylaws revision in 2009, the Society encouraged the creation of expanded, affiliated TC membership with the idea that any member working in the same technical area can become an affiliated member of a TC. Affiliated members receive all the announcements and major decisions of the TC and participate in providing inputs or paper reviewing when requested. The current elected membership of a TC can be viewed as the executive committee of a TC with voting power.

Such a two-tier structure accommodates the strict culture of the SPS TC and the tradition of elected membership, while facilitating a community built around a TC. Of course, it will succeed only if the community responds and signs onto TCs as affiliated members. As of now, some TCs are doing well with sizable affiliated members, while some are not. The Society has made it an important item during TC review to encourage a TC to actively promote affiliated membership.

Another major decision made during the 2009 Bylaws revision was to create a common set of TC Bylaws observed by all the TCs within the Society. This effort was led by then Vice President, Technical Directions, Alex Acero. Every TC used to have its own Bylaws. They were so different to the point that it seemed that the SPS was a United Nations of TCs, each having its own culture and language. That effort shared the best practices among TCs and unified the "culture" under a common umbrella of the Society.

I have heard from many volunteer leaders, either in SPS or sister Societies, that TCs are the most conservative block of their constituents. Why so? Shouldn't TCs be the most vibrant element of a Society? As we all learn from evolution theory, to be fertile and vibrant, the driving forces are diversity and new blood. Perhaps that is what a TC needs.

So have you signed onto a TC or TCs as affiliated members? Every one counts!



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