As I prepare to take over as the president of IEEE Microwave Theory & Techniques Society (MTT-S) in 2013, much of what I need to do is well-understood. The first is my tasks: the President is a volunteer who coordinates, directs, assists, or guides other Society volunteers in conducting the business of the Society internally, and represents the Society externally. The second is the means for accomplishing those tasks: the President must do so through developing a jointly shared vision with the volunteers; motivating and facilitating the pursuit of that vision; being a model volunteer to set an example for others; using the powers of persuasion; helping choose among alternatives; and yes, resolving disagreements. The third is the process to be followed: the Society’s operations manual provides great details on how things must be run. What is not so well known are the core values of our Society that are our guiding principles.

The MTT-S does have its constitution, bylaws, and operations manual publicly available on our Web site (www.mtt.org), as does our parent organization IEEE, and we inherit many other guidelines and procedures from IEEE, including an IEEE code of ethics. Is this not sufficient guidance for the Society’s work? If the IEEE mission and vision, policies, and procedures were indeed sufficient, then all IEEE Societies, and other operating units within IEEE, would have identical characteristics. Although we may tend to de-emphasize inter-Societal differences in the interest of presenting a harmonious image, careful observers are well aware that there are significant differences among the IEEE Societies. As one example, some of our sister Societies are more egalitarian than us—they accept virtually

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they announce to the world what we stand for, and what governs our choice of goals and actions. They provide a way of ensuring that our activities are aligned with our inherent characteristics, and are purposeful from the long term point of view. They serve as an anchor in turbulent times and as beacons when we are lost in the fog of multiple options and ongoing activities.

So What Are the Core Values of MTT-S?
Since such a list of core values does not exist, I propose the one in Table 1.

While the list may be new, the items on the list are long-established by tradition and practice. Core values shape our practices, and our practices are the evidence that we actually have and maintain the core values listed below.

Excellence
Quality consciousness permeates everything we do: we attempt to select the highest quality papers for our journals and conferences; we seek the most competent experts to lead our technical committees; we select the most distinguished and knowledgeable speakers for our meetings; we present recognitions and awards to the most qualified and deserving professionals; and we select the most dedicated volunteers to run the affairs of the Society. It is amply clear to anyone who has closely watched the working of the Society that MTT-S operates like a meritocracy. Why such a heavy emphasis on quality? The short answer is that we must maintain the tradition of quality to continue to earn the trust and respect, because that is the key to the success of MTT-S. That is the reason why our publications are the gold standard in our discipline; the received pool of papers is so large that we can be selective; our request for help from world-class experts is treated as an honor rather than a chore; our collaboration and sponsorship is eagerly sought and viewed as a stamp of approval; our ways of running our conferences are emulated world over; and our logo is viewed as a seal of quality (and therefore sometimes “borrowed” and misused—which is flattering but frowned upon!). None of this would be possible without the quality.

Disciplinary
The “Field of Interest” (or FOI) of the MTT-S encompasses the discipline of RF and microwave engineering, and provides the context for all of our activities; serving its needs is our raisons d’être. We contribute to innovation in our discipline by identifying, evaluating, disseminating, cumulating, consolidating, and recognizing advancements in that discipline. Advancement of this discipline motivates us to publish our papers, organize conferences, conduct local chapter activities, present educational materials, develop standards, and award accomplishments in the discipline. While our world leadership in these activities is well known and established, numerous other ancillary activities that we undertake in service of the discipline may not be so well known—such as supporting the youth educational programs in STEM.

<table>
<thead>
<tr>
<th>Table 1. The core values of the IEEE MTT-S.</th>
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<tr>
<td>1) Excellence: Dealing with only the highest quality technical information</td>
</tr>
<tr>
<td>2) Disciplinary: Serving the needs of our field of interest</td>
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<tr>
<td>3) Fairness: Fair and equal treatment of all</td>
</tr>
<tr>
<td>4) Beneficence: Helping the careers of professionals in the discipline</td>
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FEKO includes several computational methods, each optimised for different problem types. Due to a long history of hybridising different techniques, FEKO has been at the forefront of the efficient analysis of complex, low and high frequency problems. The Method of Moments, Finite Element Method, Multilevel Fast Multipole Method, Uniform Theory of Diffraction, Physical Optics and Ray-Launching Geometrical Optics are all available in the standard package.

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Mask testing | | | | |
Histogram analysis | | | | |
Clock recovery trigger | | | | |
Pattern sync trigger | | | | |
Dual signal generator outputs | | | | |
Electrical TDR/TDT analysis | | | | |

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(science, technology, engineering, and mathematics) fields through exposure to our discipline, and preservation of artifacts from this discipline in a museum as well as the historical sites related to our discipline (such as James Clerk Maxwell’s house in Scotland).

Fairness
Like IEEE itself, the MTT-S is a nonprofit organization, so our actions and decisions are governed by ethics and common good, and not a profit motive. Moreover, like IEEE, the MTT-S is a transnational and equal opportunity organization, that welcomes all to participate in its activities, whether as authors, speakers, organizers, reviewers, volunteers, committee members, and officers, and indeed does draw people from all corners of the world. Our output is available world-wide, our activities are non-discriminatory by design, and our fairness is guaranteed by an open enunciation of our processes and their vigorous oversight (yes, we have rejected papers authored by the Society’s Presidents, and the editors themselves!).

Beneficence
Although our activities benefit the mankind as a whole, the members of the Society, and other professionals who practice in this discipline, are the direct and most immediate beneficiaries. We help them fight technical obsolescence (caused by the relentless advancement of our discipline, to which we contributed in the first place!). We help them in their professional growth through networking and volunteering opportunities. We recognize and celebrate their accomplishments through dissemination, speaking engagements, and awards.

How Do We Maintain Our Core Values?
First, we actually live by them, and demonstrate our commitment to them when we drop the sponsorship of a conference after its evaluation (to maintain quality); introduce a new journal, conference, or workshops in an emerging area (to serve the discipline); fund a worldwide and free distribution of our magazine (for broader accessibility); or invest in developing educational products for members (to benefit professionals). Second, the process of selecting future volunteer leaders for the Society tends to place a premium on prior exposure to, and assimilation of, our values. And finally, the present article creates an opportunity to discuss and critique the corevalues, and canonize those that withstand the test of careful and thorough scrutiny.

No one, or organization, is perfect, and we must improve continuously. Being cognizant of our core values is one step towards that goal.

Reference