



An Existential Question

The November 2021 IEEE Technical Activities Board meeting presentations articulated several warning signs and promising calls to action. A new, radical proposal to change the way IEEE elevates its Members to Fellow status may finally address the inclusion and equity issues that we discuss but have yet to address. The proposal is still in its infancy and was drafted by a committee chaired by our very own Jose Moura. It recognizes and documents what many of us have known anecdotally: the success rate of Fellow nominations coming from industry, government, and regions outside North America and Europe is abysmally low, despite the quality of the nominees. It also recognizes the sourcing challenge: a small number of nominations from outside academia and North America

and Europe to start with. The proposed vetting process continues to involve the different technical communities within IEEE as it should, but adds a few extra provisions in the training, selection, and oversight of the peer-review committees, which have real potential to achieve fairness. I urge you to keep an eye on this developing initiative and contribute to its success by actively participating in its refinement and finalization.

A new, radical proposal to change the way IEEE elevates its Members to Fellow status may finally address the inclusion and equity issues that we discuss but have yet to address.

Two other well-researched and delivered presentations laid out plans for addressing publication revenue loss stemming from government mandates, and encouraging multi-Society memberships as no technological trend lives within a single IEEE silo. I have much admiration for the research that went into these presentations and the value of the proposals presented. At the same time, I also couldn't help but wonder if we were trying to shore up the IEEE enterprise but were no longer able to articulate our value proposition. Solely focusing on generating new revenue

to sustain our staff, publications, and conference operations may lead to an IEEE that survives as an enterprise but cannot be distinguished from other companies that focus on organizing conferences, publishing journals, or offering insurance. In an age where technical communities sprout organically on the Internet and knowledge is available through open access publications and other trustworthy online sources, it's unclear what a professional Society offers beyond the recognition of individual contributions that academia craves for promotions. The time has come for us, the volunteers who will lead the Society in 2022, staff, and all members, to address the existential threat we have tried to avoid meeting head on for so long. We must engage

in a comprehensive study of the landscape and identify compelling, unmet needs that professional Societies can address substantially better than any other enterprise, institution, or sector. Business models will naturally follow a radically redefined IEEE Signal Processing Society that can articulate a crisp, exciting, memorable, and compelling value proposition to professionals and employers. I would like to invite all of you to articulate compelling value propositions that will keep you with the IEEE and the Society and send your ideas and views to sps-questions@ieee.org.

As this is my last column, I would like to thank all the volunteers and staff members who worked closely with me over the past two years, and all the members who have reached out with ideas and responded to calls for help. COVID-19 dashed our well-laid-out plans to start new conferences with fundamentally different formats to foster the mingling of our core audience with untapped audiences. It scuttled our initiatives to generate new unconventional revenue streams and sustain new member offerings. But without our superb staff, led by Rich Baseil, Theresa Argiropoulos, Bill Colacchio, Caroline Johnson, Nicole Allen, Rupal Bhatt, Debbie Blazek, Michelle Demydenko, Mikaela Langdon, George Olekson, Jessica Perry, Jaqueline Rash, Samantha Walters, and Rebecca Wollman, and our dedicated volunteers President-Elect Athina Petropulu, Vice Presidents Fernando Pereira, Sergios Theodoridis, Ana

Pérez-Neira, Marc Moonen, Tülay Ada-
li, K.V.S. Hari, and Shri Narayanan, the
Board of Governors, and various boards,
we wouldn't have been able to survive,
and actually thrive, during the past two
years, despite the tremendous challenges
and odds we faced. It was an honor to
serve with all of them. I will be eternally
grateful for their tremendous support,

dedication, and innovation. I would also
like to thank the editors and managers
of *IEEE Signal Processing Magazine*:
Robert Heath, Christian Jutten, Jessica
Welsh, and Sharon Turk for providing me
the opportunity to write a column in the
magazine and for their patience with me
as I was always tardy in submitting my
piece. My biggest regret is that I didn't

get a chance to travel and meet with all of
you across the globe. With so many great
minds actively involved in the Society,
our future can only be bright.



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Signal Processing in Our Digital Era

I am excited to start my service as the
IEEE Signal Processing Society (SPS)
president. I should note that I am the
first SPS president directly elected by the
SPS membership, due to the SPS Board
of Governors (BOG) urging a stronger
member voice in elections. This is a big
honor for me and I would like to express
my thanks to SPS members for their trust.
I write this article to introduce myself,
acknowledge key volunteers and staff for
their service, outline the activities I will
lead over the next two years, and invite
your comments and suggestions.

A few words about my personal journey

I was born and raised in Kalamata,
Greece, graduated from the National
Technical University of Athens, Greece,
and then moved to the United States for

a graduate degree at Northeastern Uni-
versity in Boston, Massachusetts. During
my Ph.D. degree, I was introduced to the
exciting area of signal processing (SP),
and after attending various SPS events
it became clear to me that SPS was the
community with which I would like to
be associated. I was drawn by SPS's vi-
brant conferences and workshops, where
I would get exposed to cutting-edge re-
search and receive feedback on my work,
the high quality of the publications, and
the presence of researchers of the highest
caliber, with whom I could meet at con-
ferences and draw inspiration. For all of
these reasons and for over 30 years now,
SPS has been my professional home.
Over the years, my research interests have
spanned the areas of statistical SP, system
identification, multiple-input, multiple-
output (MIMO) systems, cooperative
beamforming, physical layer security,
MIMO radar, spectrum sharing between
radar and communication systems, and

biomedical SP. I had the opportunity and
the honor to be involved in technical lead-
ership activities; I was editor-in-chief of
IEEE Transactions on Signal Processing,
general chair of the 2005 IEEE Interna-
tional Conference on Acoustics, Speech,
and SP (ICASSP), SPS vice president
(VP) of conferences, and was twice
elected by the SPS membership as BOG
member-at-large and, of course, as SPS
president-elect.

Acknowledgments

I would like to thank past SPS Presi-
dent Ahmed Tewfik for his leadership
and his vision. His presidency spanned
two very difficult years, marked by fear
of an invisible enemy that had us navi-
gate a completely uncharted territory.
Still, SPS came out very strong from
the COVID-19 pandemic, having dis-
covered new ways to improve its reach
and impact. It was great training for me
to be president-elect alongside Ahmed