IEEE President-Elect Candidates Address Computer Society Concerns

As the largest IEEE society, the Computer Society (CS) serves computing and IT professionals at all levels of their careers, through IEEE’s network of more than 400,000 members in 160 countries. The IEEE president and Board of Directors define a vision for the association and therefore the decisions they make and plans they put in place impact CS members and volunteers.

Therefore, to ensure CS members are well informed about the candidates on the 2018 IEEE election slate, the CS asked each of the IEEE president-elect candidates for their responses to three important questions that impact our Society. The questions and candidates’ responses (limited to 150 words each) are provided here. Please take a few moments to read what these candidates have to say, and be sure to vote in the election, which begins on 15 August 2017 and ends on 2 October 2017 by noon CT USA/17:00 UTC. We encourage all members to participate in this important ballot process. We also remind and encourage you to cast your votes for the CS election by noon EDT on 25 September 2017.

—Hironori Kasahara
IEEE Computer Society President-Elect
IEEE PRESIDENT-ELECT CANDIDATES

JOSÉ M.F. MOURA
José M.F. Moura, Philip Dowd University Professor at Carnegie Mellon University (www.ece.cmu.edu/~moura), received his degrees from Instituto Superior Técnico (IST), Portugal, and MIT. He was on the faculty of IST, MIT, and NYU. His interests include data analytics and signal processing.

He holds 14 patents with technology licensed and distributed by Intel (10 million LOC in its MKL and IPP libraries), Siemens (in MRI machines), and others.

A detector coinvented with Kavcic is in 3 billion hard disk drives in 60% of computers sold in the past 12 years. Co-founder Spiralgen (www.spiralgen.com).

Member of US National Academy of Engineers; corresponding member of Portugal Academy of Sciences; Fellow of IEEE, US National Academy of Inventors, and AAAS.

IEEE service: Portugal Section cofounder; Transactions SP EIC, SPS and Sensors Council Publications VP, SPS President; Division Director; Technical Activities VP, Officer, and Director (2016); Boards’ membership: PSPB (Products and Services) and EAB (Education).

VINCENZO PIURI
Vincenzo Piuri is a professor of Computer Engineering and was department chair at University of Milan, Italy. He has been visiting professor at University of Texas—Austin and visiting researcher at George Mason University. He is honorary professor at three universities in Europe/Asia.

He founded a start-up company on intelligent systems and is doing industrial research with several companies.

His research and industrial interests are: intelligent systems, pattern recognition, machine learning, signal/image processing, and digital architectures. He has published 400+ research papers.

He has actively served IEEE for 33+ years in technical committees, conferences, publications, education, membership, management, finances, and strategic planning.

Major IEEE roles: IEEE Technical Activities vice president; IEEE Board of Directors (four years), Technical Activities Board, Publication Services and Products Board, and committees; committees of Member and Geographic Activities Board and Educational Activities Board.

He is an IEEE Fellow, ACM Distinguished Scientist, IEEE-HKN member, and CS member.

JACEK ZURADA
Jacek Zurada (IEEE Life Fellow, http://jacekzurada.org) is a professor of Electrical and Computer Engineering at the University of Louisville, Louisville, Kentucky. He was a post-doc at Swiss Federal Institute of Technology in Zurich, a Visiting Professor at Princeton University, and a Distinguished Visiting Professor at NUS/NTU (Singapore).

He has authored several textbooks and over 400 publications in computational intelligence, machine learning, image/signal processing, and microelectronics that have resulted in 10,800 citations. He has also served industry and start-ups as a consultant.

Zurada’s IEEE leadership posts include: vice president for Technical Activities; vice chair of Publications Services and Products; chair of the three key publication committees: Periodicals, Periodicals Review, and Transactions Committees; president of Computational Intelligence Society; editor in chief of IEEE TNN.

He received numerous IEEE, University, and learned-society awards for research, teaching, and service. He was elected to the Polish Academy of Sciences and received five honorary professorships.
### QUESTION 1

**FINANCES: What are your plans for increasing Society and Council net revenue and for reducing overhead expenses?**

**Moura**

In 2013, Ray Liu and I moved a TAB motion requiring financial transparency at all levels of IEEE finances. TAB presidents and directors started FinCom, an open group, to implement financial transparency. We now understand that Societies/Councils (S/Cs) generate about 75% of all IEEE gross revenues, 60% of which are the S/C IP products (journals and conference proceedings, including the digital distribution channel, IEL, Xplore). After direct and indirect expenses (34%) and corporate overhead (30%), only 31% net revenue is returned to S/Cs—for each three dollars of gross revenue generated from IP products, only one dollar is returned to S/Cs. Computer Society (CS) is disproportionately taxed by the 30% corporate overhead because CS draws a majority of its revenue from IP products. My goal as President is to institute financial accountability and transparency at all IEEE levels to eliminate waste and return a larger fraction of revenues to S/Cs.

**Piuri**

Transparency of decisions and finances is essential to understand budget. Pervasive and deep participation of diverse-thinking volunteers and Organizational Units in decision processes is essential for comprehensive analysis. These principles should be preserved for appropriate monitoring and control.

- Measures to improve transparency: clarify budget structure and allocation rules; and adopt a service-center model to understand cost allocation for used services.
- Measures to reduce overhead: accurate IEEE-level spending review for optimizing global expenses; IEEE-level project review for reducing unnecessary expenses; and new IEEE-level activities to be approved only after medium-/long-term financial impact has been analyzed by considering all annually submitted proposals and those previously approved.
- Measures to reduce expenses: sharing best management practices with financial impact; supporting experiments for innovative activities, potentially valuable across IEEE; sharing services/products/platforms across IEEE for lowering costs; periodic OU spending review; and cooperating with national associations to limit investments for joint activities.

**Zurada**

To increase net revenue we need to maximize revenues and reduce expenditures. By analyzing the individual nets of each product line, Societies/Councils (S/Cs) can manage their revenue and put controls in place. These include moving certain periodicals to e-versions only, reducing the accepted-paper backlog, changing the over-length page charges, or adjusting the number of sponsored conferences and conferences with technical cooperation.

S/Cs’ total expenditures, however, are the actual S/C expenditures combined with the indirect cost (overhead) payable to the Institute. While S/Cs can control their own expenditures in a number of ways, the overhead is a flat percentage. The control over this Institute-wide expense rests with the Board of Directors.

The IEEE-wide overhead is invested in future technology directions, technical communities, information technology infrastructure, marketing for public visibility, and humanitarian efforts, to name a few IEEE-wide thrusts. To keep these investments in line requires our collective fiscal responsibility and discipline.
QUESTION 2

SOCIETIES’ COLLABORATION: Collaboration among IEEE societies is important for promoting research, development, education, and also to increase joint membership. Do you have any plans to push efficient collaboration among Societies including the Standards Association further?

Moura

TAB Societies and Councils (S/Cs) generate 75% of IEEE gross revenues through their IP products and events (conferences and workshops). S/Cs generate educational products and are active in standards. As 2016 TAB vice president, I created ad-hoc committees between TAB and other major IEEE units—one on membership with Membership and Geographical Activities Board, one on education with Educational Activities Board, and one with the Standards Association. As president, I will proactively foster collaboration and cooperation among S/Cs in TAB and across major Boards to successfully address the real IEEE challenges—for example, dramatically increasing IEEE and S/C membership (reversing the decreasing trend), by understanding the value proposition for each membership segment in each region of the world, and by creating products and services that appeal to our (local) technical communities, say, education and training products targeting different industry professionals, or networking, professional development, and mentoring opportunities for young professionals.

Piuri

For some years, I have promoted collaboration among Societies, Technical Councils, Standards Association, Regions, and Sections to understand respective needs and synergies as One IEEE. This approach strengthens bonds, improves effectiveness, enhances knowledge dissemination, expands people networking, supports interdisciplinary areas, increases service/product users, reduces duplications, and reduces expenses.

Across Organizational Units, I would like to promote: best practices concerning cooperation; volunteer awareness to make cooperation’s value visible; new initiatives for interdisciplinary emerging technologies/applications/standards and products/services; a single repository of educational material metadata for comprehensive search; recommendation system for searching IEEE knowledge, services, and products; data/algorithms repositories and data analytics/mining tools for research, industry, and education; studying joint discounted membership, joint rewards mechanisms, and other membership models among Societies and Standards Association; and studying IEEE membership personalization with knowledge, services, and products relevant to individual member’s profile, independent from originating Organizational Units.

Zurada

The vertical organization of IEEE Technical Activities follows the dividing lines defined by the fields of interest of Societies and Councils. The divides are natural and reflect the breadth of IEEE’s technology portfolio. While each of the 46 S/Cs advances different technology, the S/Cs’ tasks typically overlap. These include technical activities, membership and community development, events and conferences, standards development, educational/career services, and resources for industry professionals. Despite overlapping activities, however, joint S/C ventures are typically limited only to co-sponsored journals and conferences.

I will encourage cross-S/C and Standards collaborations since they’re economically more efficient and consume less volunteer resources. With one- or multiyear-based funding, such partnerships would require joint funding of inter-S/C projects. Pooling volunteer talent from across the units will follow. S/C leaders could develop such joint ventures through more frequent consultations, and cross-pollination of their boards, especially if their fields of interest are closely related.
**QUESTION 3**

**REWARDS PROGRAM FOR VOLUNTEERS:** In order to express appreciation to volunteers and promote volunteers’ activities further, the CS is considering a kind of point accumulation system so that Society members can be rewarded for their volunteer works, such as serving as committee members, editors in chief, reviewers, conference chairs, program committees, and so on. The thinking is that active volunteers can achieve higher status and/or honors, like Premier Gold members, distinguished reviewers, lifetime Premier members. These higher status members will have services like premier registration and premier seating in conferences, for example. Also, in the future, it would be more beneficial for our members if they can accumulate the CS points for activities in other Societies and the IEEE Standards Association.

Would you be interested in financially supporting our reward system as a pilot for IEEE’s future deployment?

**Moura**

This is a very interesting and intriguing initiative, and CS is again leading the way, like it led the way in new-style events, see CS’s Rock Star events, or even the Women in Engineering Conference started by Nita Patel, a CS Board member. IEEE has a bright future, but to address its challenges and opportunities successfully requires strong cooperation among all units, from S/Cs in TAB to major IEEE units. As president, I will proactively encourage units to develop initiatives of common interest, so that start-up costs and corresponding rewards are jointly shared. A rewarding program for volunteers is clearly of interest to all IEEE units, possibly with a portfolio of different inducements and rewards targeting different volunteer activities and targeting the specific interests of different local communities. As president, I will encourage and financially support a pilot development of a rewarding program for volunteers.

**Piuri**

A point-accumulation system rewarding well-accomplished volunteering activities for a Society or Technical Council, including their Chapters, will be valuable. I personally started analyzing it when I was Division Director.

Points may be used to: achieve higher tiers of Society membership or services when available; join other Societies, Standards Association, or Affinity Groups, having membership fees; purchase services and products; and renew IEEE and/or Society membership.

Points may be cumulated also by: registering at conferences or purchasing services/products (as incentive to renew or become member); serving in multi-Society technical communities (e.g., initiatives on emerging technologies), Standards Association, Affinity Groups (e.g., Young Professionals, Women in Engineering, Life Members), and other IEEE Organizational Units.

Definition and use of points for various activities should be carefully studied, also financially. I firmly believe that an experiment is worthwhile for all of IEEE and deserves to be financially supported.

**Zurada**

I believe this is a worthwhile project, especially as IEEE is driven by an extraordinary community of talented volunteers. They are the Institute’s most precious resource and since the technology advances so fast, this scarce resource is in high demand. Our volunteers, however, derive no other benefits than their personal satisfaction from championing technologies and serving the IEEE mission they are passionate about.

Our present reward system is largely based on Certificates of Appreciation that are awarded for volunteering in specific roles and for a specific time period. In addition, we have a number of service awards. But in general, the IEEE recognition system tends to reward current or recent activities. In contrast, the proposed Rewards System would be more cumulative rather than rewarding a volunteer role for a specific period. I would support this proposal. However, I’d prefer that no financial benefits be attached to the higher grade status.