IEEE President-Elect Candidates Address Computer Society Concerns

The IEEE Computer Society has established a reputation for excellence within the computing field. As a component of the IEEE, the Computer Society’s activities parallel those of 44 other IEEE societies and councils serving the computing and engineering disciplines. Representing by far the largest IEEE society contingent, the Computer Society has 76,885 members, approximately 60 percent of whom are full IEEE members.

Recognizing the influence of the IEEE leadership over the Computer Society and in turn the power of Computer Society members’ votes to influence the selection of the IEEE leadership, we posed questions to this year’s IEEE president-elect candidates. Because this election determines who will serve as president-elect in 2008, president in 2009, and past president in 2010—vital positions within the IEEE’s governing body—our members must cast informed votes.

Our volunteer leaders have identified the following questions as essential to the Computer Society, the IEEE, and the Computer Society’s relationship with the IEEE. The first response to each question states the Computer Society’s position. These positions synthesize the views of our most senior leadership: the Society’s current, past, and incoming presidents.

We present these questions and answers (limited to 150 words each) to help you make your decision in the IEEE election. Only ballots received by 1 November 2007 will be counted.

We also remind and encourage you to cast your vote for Computer Society leaders by 2 October 2007 in our Society election.

—Rangachar Kasturi, IEEE Computer Society President-Elect

MARC APTER
Marc Apter received a BSEE from Pennsylvania State University (1964). He served in the US Navy for five years. He then worked for the US Navy as a civilian with the responsibility for installation of various electronic and other systems, developing electronic maintenance policy and auditing maintenance planning for new systems, managing part of the Navy’s Metrology and Calibration Program, managing the Navy’s Maintenance and Configuration Management Programs, and finally as the Command Information Systems Security Manager. He is currently a Senior Information Assurance Specialist for EG&G Technical Services, developing security documentation for government computer systems and applications. Apter has held many offices in the IEEE and has served on numerous IEEE committees and boards.

For more information about his candidacy, see www.marcapter.com.

PEDRO RAY
Pedro Ray successfully completed the Harvard Business School OPM program, class of 2001. He received a BSEE and MSEE from Georgia Tech. He is a licensed professional engineer.

He is president of Ray Architects Engineers, one of the largest design firms in Puerto Rico, with a subsidiary in Martinique. He owns or presides over various commercial and residential development corporations.

Ray was the chief examiner in charge of revision to the Puerto Rico Electricity Pricing Structure (2000) and was named Puerto Rico’s Electrical Engineer of the Year 2000. He received the 2005 IEEE PES Chapter Outstanding Engineer Award.

Ray is a member of the YPO, a group of 10,000 young leaders from around the world.

For more information about his candidacy, see www.pedroray.org.

JOHN VIG
John Vig received a BS from CCNY in 1964 and a PhD in physics from Rutgers-The State University in 1969. He joined the Electronic Components Laboratory at Fort Monmouth, N.J., in 1969. Throughout his professional career, working as an electronics engineer and program manager, he performed and led research aimed at developing precision oscillators and sensors. In 1988, Vig was elected a Fellow of the IEEE.

He has 55 patents and has published more than 100 papers and nine book chapters. He serves as a volunteer in his home town as an environmental commissioner. In his spare time, he and his wife of 44 years enjoy ballroom dancing.

For more information about his candidacy, see www.johnvig.org.
Question 1: Financial Management

The IEEE is enjoying a positive financial position, and spending at the IEEE corporate level is increasing. Increased expenses translate into lower revenue returns and higher infrastructure costs for Societies.

How would you ensure that the IEEE follows prudent financial management practices?
How would you make sure that the Infrastructure Oversight Committee prevents excessive growth of the infrastructure?
How would you address the concerns of Societies that are running a deficit?

Marc Apter

I would move to develop plans to implement the recommendations of the consultants that the Computer Society paid for over four years ago; I would have a team of volunteers, staff, and consultants look at our current financial formulas that have parts of the organization bleeding money when at the same time the reserves are growing in value by the many millions of dollars; and I would support the continuation of the efforts of the IEEE Fincom to move more costs from indirect to direct infrastructure charges. Since staff salaries are one of the largest growth items in the budget, and since the size of the staff has been growing, I would freeze the total staff size and require the Executive Director to manage within that total count for at least two years, while a joint volunteer/staff team identify possible staff positions that can be reutilized.

Pedro Ray

I guided the IEEE finances as treasurer with a set of principles that proved successful: realistic budgeting processes with each OU having a balanced budget (no deficit budget) and tight control over expenses. Recently, the IEEE has become more lenient in allowing more expenses to creep in. I have the experience to bring the IEEE online with good financial practices.

The Infrastructure Oversight Committee was recently overhauled. The members got longer terms so there could be continuity. The size and composition of the committee were changed to give it more power. As president, my role will be guiding and making sure the leadership of this committee is aligned with the financial goals of my presidency.

Some Societies are having difficult times, due mainly to the internal allocation (algorithm) of funds and infrastructure by the Technical Activities Board. I have the financial background and the will to solve this issue.

John Vig

Although it is true that “spending at the IEEE corporate level is increasing,” revenues has been increasing faster, overhead rates have actually been declining. I will continue to support prudent budgeting and financial controls and program sunsetting, and I will make the Infrastructure Oversight Committee (IOC) more effective.

Currently, the IOC “… shall consist of… the IEEE Past Past President, who shall be Chair; the IEEE Past President, who shall be Vice Chair…” One way I would improve the IOC is by eliminating such entitlements. Those who are best qualified and are willing to make the necessary time commitment should be the chair and vice-chair.

Societies’ problems are often rooted in Technical Activities Board (TAB) policies, especially in revenue distribution algorithms. Ultimately, however, it is up to the Societies to increase their revenues, or reduce their expenses, or both. I will address Societies’ concerns in cooperation with the VP, TAB.

Society Position

The Computer Society encourages the IEEE president to lead the IEEE Board in limiting corporate spending. Increases in IEEE corporate spending decrease IEEE societies’ capacity to offer services tailored to the needs of members and nonmember customers.

The IEEE president should work with the Infrastructure Oversight Committee to ensure that spending proposals have prudent and realistic goals and are thoroughly reviewed for financial soundness. Each proposal should have a periodic evaluation and a final assessment report reviewed by the IEEE Board of Directors.

The IEEE president should support efforts to have transparency in corporate financial statements so that volunteers and staff can better understand IEEE revenue and expense structures and be able to establish appropriate financial controls. The IEEE president should encourage IEEE volunteers and staff to work collaboratively and creatively to aid societies that are actively working to reduce their deficits.
We have repeatedly conducted membership surveys and discussed a variety of membership models. It is now time to experiment. Let us try a variety of models, for example, each in a small number of geographic areas. Let us try lowering the dues by making some offerings optional or, as some call it, “pay-by-the-drink.” I would definitely “support the trial of a ‘low-barrier’ offering” as this would be especially attractive for Societies facing lower-cost competition (for example, the Computer Society) and in countries where income levels make our dues unaffordable. Basic IEEE dues revenues represent <10 percent of total revenues. We have >US$200 million in reserves. We can afford to experiment. I support lowering the affiliate fee. Moreover, I support allowing Societies to set their own fee. Affiliate membership enables the Computer Society to compete with other professional associations that can offer lower membership fees.

Marc Apter

I would do exactly what the question says—look at new models of affiliation outside traditional membership. With the consideration of these new models would come a reevaluation of what is currently known as the “affiliate fee.” I would also include consideration for a trial of a “low-barrier” offering, based on the various membership-related studies of the past two years, to meet competitive challenges in countries where our potential members make salaries that in dollars are inadequate to afford our current dues structure.

Pedro Ray

We need to change our current membership model to create a different value interpretation. We need to change the value perception of what members believe they are getting for their money.

We need to repackage the higher grade membership with training/programs by experts, Xplore downloads, and other similar benefits.

At the lower end of the spectrum, we need to create an electronic membership tier for developing countries where now it would be impossible to join the IEEE even at our reduced prices.

As for an affiliate fee, I propose that we should revisit the subject and see what the competition is doing—find the price point, sensitivities, and make a determination.

I could support a trial of “low barrier,” but we must not compete on price alone. We must not commoditize our membership because then we will all lose forever.

John Vig

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### Question 3: Globalization

Besides the issues of price and membership models, globalization poses other challenges to the IEEE. Examples include the protection of intellectual property, the need to coordinate standards activities, and the existence of and potential creation of regional groups formed to influence local public policy. Sometimes the positions taken on these issues by the IEEE or its units may appear to conflict with one another or with the IEEE’s global vision.

Please comment on how you would work to foster a global approach to such issues.

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<th>Marc Apter</th>
<th>Pedro Ray</th>
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<td>I would try to establish a policy that would require any IEEE subunits that intend to try and influence public policy to establish separate organizations controlled by the IEEE, but without having IEEE in their name. They must also be limited in area to only one country, except for the multiple countries that are part of the EU. I would lead the effort required to have the IEEE really work with all our volunteers throughout the world to have them be directly part of the efforts as we address the protection of intellectual property and the need to coordinate standards activities.</td>
<td>The best approach is constant communication and coordination between the units (Societies and others) and the IEEE. On the one hand, the IEEE needs to be nimble and be “out there,” making decisions without interference from headquarters, like a federate kind of governmental system. On the other hand, there is the need in such a system of constant consideration that the global vision is followed and that the rights of the one stop where the rights of the others begin. Also, we serve the whole IEEE membership, not just one country or a small segment of the IEEE. Conflicting views and positions will be vented and clarified internally before we make any public policy or statement. I will propose that the Executive Committee serve as the clearinghouse for such policy statements and as the resolution center for conflicts.</td>
<td>I have proposed the creation of an IEEE Professional Activities Board. This Board would oversee and coordinate the professional activities of regional IEEE groups. The region directors, among others, would serve on this Board. Currently, IEEE-USA is the major “regional group” whose mission includes influencing public policy. However, 42 percent of IEEE membership is now outside the US, and this percentage has been growing faster than membership in the US. If the trend continues, the majority of members will be outside the US in about 10 years. It is likely that other IEEE-USA-like regional groups will be formed in the future, especially in areas where no national society exists. The Professional Activities Board’s mission would include the orderly formation of regional professional activities groups and the screening of positions taken by these groups to ensure that the positions do not conflict with each other and with the IEEE’s policies.</td>
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The most effective approach to manage opportunities and address challenges should be a collaborative, coordinated effort. The IEEE president should take the lead in coordinating the activities of entities within the IEEE. Careful coordination will avoid duplication of efforts and avoid creating confusion. Individuals and companies may not be able to distinguish overall IEEE policies from the policies of regional units focused on the needs of its members. This can lead to confusion and, worse, mistrust when the IEEE’s global approach conflicts with an entity’s localized position. Such conflicts discourage member and corporate support for IEEE and society activities.
When multiple societies have activities in an emerging technical area, creating a council, led by a highly committed, entrepreneurial person, is often the best course of action. For example, I proposed, and was eventually elected to be the founding president of the IEEE Sensors Council. At the time, the IEEE had no journal and no major conference devoted to sensors. Today, the Council has >20 member societies (the Computer Society is one of them), a successful journal, and a successful conference. The IEEE Sensors Journal published 400 pages in 2001, its first year. In 2007, it is publishing 2,000 pages. The IEEE SEN-SORS conference typically attracts 600 participants.

Dealing with emerging technologies is the Technical Activities Board’s responsibility. I would encourage new groups to cooperate with existing units by encouraging TAB to foster such cooperation through the formation of councils, joint publications, and joint conferences.

Marc Apter
My many years as an IEEE volunteer have shown me that to start anything new requires a temporary organizational structure initially. After something is viable, it can either be made part of an appropriate existing organization, or it occasionally requires the formal establishment of a new organization to operate successfully. These new efforts addressing emerging technologies will require funding above our current budget levels, at least until such time as they become self-sustaining.

Pedro Ray
Identifying and adding emerging technology is key to the future of the IEEE. Our members want it and the industry wants it. How we deliver these technologies is our challenge. It is important that the IEEE be nimble in identifying new technologies, but there should be a process that must be followed before a community could be formed. Consideration must be given to existing communities as well as to financial capabilities to support these new groups before a decision is made to form a new group.

Once the decision is made to create a new emerging technology community, then we must assign the resources to make it a viable operation. Emerging technologies will expand the revenue base of the IEEE and shall share in the results.

John Vig
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Dealing with emerging technologies is the Technical Activities Board’s responsibility. I would encourage new groups to cooperate with existing units by encouraging TAB to foster such cooperation through the formation of councils, joint publications, and joint conferences.
The IEEE Computer Society, a unit within the IEEE Technical Activities Board (TAB), is often perceived as an outlier among the entities of TAB due to its size, member profile, external competition, the constituency it serves, and other factors. The IEEE TAB structure is seen by some as a potential barrier for the IEEE Computer Society to meet its challenges to innovate, seize opportunities, manage competitive threats, and ensure long-term financial stability.

How would you address these concerns? Would you support the creation of an alternate structure to facilitate the IEEE Computer Society in reaching its full potential?

Marc Apter

There is a problem with the current structure of TAB, and I don’t think further patches will solve it. It is time for TAB to be replaced with a completely new structure, and the best and the brightest within TAB should meet and propose the new structure. Until this relook at TAB is complete, any change to the Computer Society’s position within the IEEE structure should not be considered.

Pedro Ray

I am a strong supporter of the Computer Society becoming a Major Operating Unit (MOU). I think this has great benefit for the IEEE. As the question mentions, this will allow the largest society to compete and to reach its full potential (this is good for the IEEE). By having a seat at the IEEE Finance Committee, the operations of the Computer Society and that of the IEEE will be better integrated. For example, we could better use the CS Publication Group as a resource for the rest of the Institute (this is also good for the IEEE). Again, by having a seat at Fincom, decisions of importance could be made quicker (good for the IEEE). Eliminating the need to respond through TAB but instead responding directly to the IEEE Board of Directors makes the Computer Society more nimble (which is good for the IEEE).

John Vig

I agree that the Computer Society is an outlier in TAB. I shall be happy to work with the Computer Society leadership to address the Computer Society’s concerns. I shall support reducing the affiliate dues, as I stated above. I shall support proposals aimed at making sure that the Computer Society is not “taxed” unfairly. I shall be open to Computer Society proposals aimed at reducing the Computer Society’s expenses through reducing duplications of effort between it and the IEEE and through other means.

Beyond that, whether or not I would support the creation of an alternate structure will depend on the structure proposed. The success of the Computer Society and the IEEE are intimately linked. The continued growth of IEEE must not occur at the expense of the Computer Society. I will welcome proposals that will help the Computer Society reach its full potential.
What are your three most important priorities for your presidential year, and how do you intend to accomplish these priorities?

Marc Apter

Start addressing financial issues by moving in February 2008 to freeze the total staff headcount. I would ask the 2008 president to appoint me to lead a team both to develop actions to implement the recommendations of the consultants from over four years ago and to look at our current financial formulas that have parts of the organization bleeding money when at the same time the reserves are growing in value by the many millions of dollars.

I want to ensure that our members paying full dues get benefits they can see. I want to look at membership models that will help us meet the challenges in countries where our current and potential members make salaries that are inadequate to afford our current dues structure.

I want to develop a recognition and awards program for working professionals that is similar to the current one for academics and researchers.

Pedro Ray

Membership. We need to create a membership model that addresses the needs and cost for high-grade members by repackaging our offering and changing our value proposition. For developing countries, we need an electronic membership with a low barrier to entry and a low cost of service.

Finances. For the past decade we have depended heavily on the revenue that we get from IEL, and we hope that it continues. But we are depending too much on that source of revenue. I think we need to convene a strategic meeting to find alternate sources of revenue for the IEEE.

Organization. Not all Societies have done well during the past several years, and this is due to some structural problem in our organization. I will dedicate the time required to help reorganize the IEEE to become an efficient and effective organization.

John Vig

My three highest priorities are to:

- Foster experimentation and innovation. The IEEE has great volunteers, staff, products, and services, but innovation within the organization has not been among IEEE’s greatest strengths. The Computer Society has been more innovative—for example, it was first in IEEE to create a digital library. I want to bring about more experimentation and innovation throughout the IEEE.
- Invest more in our future. In 2005 and 2006, we added 10 times more to our reserves than we invested. Today, our reserves are >US$200 million (>US$500 per member)! So, we can definitely afford to invest more in the IEEE’s future!
- Improve the cost-benefit ratio of membership for everyone.

I intend to accomplish my priorities through practicing good leadership. I have demonstrated my leadership abilities via my accomplishments as conferences chair, society president, standards committee chair, VP of Technical Activities, and my service on the Board of Directors.