

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 37 other IEEE societies and councils serving the computing and engineering disciplines. Representing by far the largest IEEE society contingent, the Computer Society has 85,000 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 2009, president in 2010, and past president in 2011—vital positions within the IEEE's governing body—our mem-

bers 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 annual election. Only ballots received by noon, central time, on **1 October 2008** will be counted.

We also remind and encourage you to cast your vote for Computer Society leaders by **6 October 2008** in our Society election.

—Susan (Kathy) Land, CSDP,
IEEE Computer Society President-Elect



MOSHE KAM

Moshe Kam (PhD, PE) is the department head and Robert Quinn Professor of Electrical and Computer Engineering at Drexel University. He also leads Drexel's Center for Excellence in Information Assurance Education.

Kam's professional interests are in wireless communications, robotics and navigation, detection and estimation, and engineering education. His research was funded by the US National Science Foundation (NSF), DARPA, ONR, US Army-CERDEC, Lockheed Martin, and GlaxoSmithKline.

Educated at Tel Aviv University (BSc 1977) and Drexel University (MS 1985, PhD 1987), Kam is a Fellow of the IEEE "for contributions to the theory of decision fusion and distributed detection" (2001). He is also a recipient of an IEEE Third Millennium Medal and an NSF Presidential Young Investigator (1990).

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



PEDRO RAY

Pedro Ray successfully completed the Harvard Business School OPM program, class of 2001. A licensed professional engineer, he received BSEE and MSEE degrees from Georgia Tech.

He is president of Ray Engineers, a professional services corporation with more than 90 employees. He is also the owner and president of various real estate development corporations.

Ray was the chief examiner in charge of revisions 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 Young Presidents Organization, a group of 10,000 young leaders from around the world.

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

Question 1: Financial Management

Spending at the IEEE corporate level is increasing. Increased expenses translate into lower revenue returns and higher infrastructure costs for societies.

As IEEE president, how would you ensure that the IEEE follows prudent financial management practices and prevents excessive growth of the infrastructure?

How would you address the concerns of Societies that are running a deficit?

Computer Society Position

The Computer Society would encourage the IEEE president to lead the IEEE Board of Directors in limiting corporate spending. Increases in IEEE corporate spending lead to decreases in funding allocations for all IEEE societies and therefore decrease the ability of each of the societies to offer services tailored to the technical needs of their members.

The IEEE president should work with volunteers and staff to ensure that spending proposals have prudent and realistic goals, are thoroughly reviewed, and are financially sound. Spending decisions should not result in a deficit budget. Each proposal should have targeted goals, periodic evaluations, and a final assessment report, all reviewed by the IEEE Board.

The IEEE president should support current 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.

Moshe Kam

It is true that spending has increased, but so have revenues. The key question is whether we are spending in the right areas, and whether we are prudent, economical, and focused. Spending that would increase our future membership and diversify our lines of business should be supported. Increased spending (or for that matter, any spending) on extraneous and obsolete activities—including unnecessary travel and ineffective committees—needs to be stopped.

To this end, I intend to support the guidelines developed for IEEE's financial management and work with the Strategic Planning and Finance Committees on a plan for prudent investment of IEEE reserves in our future, including the future of the IEEE Computer Society. Moreover, I intend to insist on increased transparency so that volunteers at all levels—including societies and sections—have the opportunity to contribute to the decision-making process and understand what IEEE does with its funds.

Pedro Ray

I guided 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.

Some Societies are having difficult times, due mainly to the internal allocation (algorithm) of funds and infrastructure by the Technical Activities Board. I will work with the Societies in question and the TAB vice president to come to an understanding and possible solutions. I have the financial background and the will to solve this issue.

Question 2: Affiliate Member Fees

The IEEE and its Societies face competitive challenges as other professional associations have developed more creative outreach programs. Among other strategies, they have dramatically lowered prices and allowed for new models of affiliation outside traditional membership. The IEEE sets the affiliate fee at 50 percent of the current IEEE base fee, which can impact Societies' ability to attract and retain affiliate members. The IEEE provides no direct services for affiliate members.

What is your position on lowering the affiliate fee?

Would you support returning a portion of the affiliate fees to the Societies that provide services to affiliate members?

Computer Society Position

The IEEE Computer Society would support efforts by the IEEE president to evaluate new membership models for the purposes of increasing IEEE's membership worldwide and improving the value of the membership experience for each individual. The IEEE president should understand that if the IEEE does not offer more flexibility in its member options and pricing structure, enabling members to select benefits tailored to their needs, and make fees affordable in certain markets, the IEEE will find its share of membership continuing to decline.

The IEEE president should set the development of a new membership model as a priority. This model should support Societies' efforts by allowing more flexibility in membership requirements, particularly targeting the attraction of information technology (IT) practitioners.

The Computer Society would request the strong support of the IEEE president in lowering the affiliate fee, which is currently set at 50 percent of IEEE member dues. More than 90 percent of IEEE affiliates belong to the Computer Society. Affiliates receive no direct benefits from the IEEE, and the costs of servicing affiliate members are already covered by indirect infrastructure charges. Affiliate membership enables the Computer Society to compete with other professional associations that can offer lower membership fees. Returning a portion of the affiliate fees would enable the Society to direct fees to increase member services.

Moshe Kam

I support data-driven decision making. While the subject of affiliate pricing has been under discussion for years, we have not yet seen a reliable market study that would tell us, based on data and analysis, what the optimum price for affiliates is.

I will support a professional study that would answer the key questions about affiliates, as well as field studies that would validate the study's predictions. Such a study should not require more than six to nine months.

I would support distribution of affiliate income according to the distribution of costs for the units that provide affiliates with service. I believe that full accounting of services to affiliates (including all costs to societies and sections) can and should be done. Distribution of affiliate fees should then follow the distribution of costs.

Pedro Ray

The IEEE exists in a competitive market, so prices cannot be set in a vacuum. If our competition has lowered the prices, then we must follow suit, unless we can justify a higher price because of a better service or product than that of our competitors. Generally, I will be more inclined to offer a better service or an additional product for the price that we advertise, but knowing IEEE's offerings and limitations at this time, I am willing to accept lowering the affiliate fee to match that of the competition. I am willing to sit down with societies and discuss the possibility of returning a portion of the affiliate fees to societies that provide services to affiliate members.

Question 3: Presidential Priorities

What are your three most important priorities for your presidential year, and how do you intend to accomplish these priorities?

Computer Society Position

No IEEE Computer Society position.

Moshe Kam

- Implement new initiatives focusing on **practicing professionals** including:
 - Creating a **Professional Activities Board** in the IEEE to address the needs of practitioners and help with training, networking, and continuing education.
 - Developing an **online anthology of practice-oriented papers and publications** selected from IEEE publications, with inline commentary and reader comments.
 - Developing and distributing **online educational modules** for continuing education.
 - Making the IEEE a major player in professional certification.
 - Introducing **corporate membership** in the IEEE.
- Develop new means to incorporate into IEEE's portfolio **new technologies and technical areas** that fit the IEEE's mission, such as new disciplines from the interface between electrical engineering, computer engineering, computer science, and the life sciences.
- **Increase the value of membership** by providing members with more choices in selecting membership options and services. Allow members more freedom in deciding which IEEE activities they wish to participate in (and pay for).

Pedro Ray

Membership. We need to create a membership model that addresses the needs and cost for high-grade members by repackaging our offerings 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 problems in our organization. I will dedicate the time required to help reorganize the IEEE to become an efficient and effective organization.

Question 4: Attracting IT Professionals

IT professionals are a potential source of members for IEEE and its Societies. However, the IEEE faces strong competition in attracting IT professionals to its membership ranks, and it would need to expand the scope of its member products and services.

In your opinion, should the IEEE focus on attracting IT professionals as members? If not, why not? If so, what specific actions would you recommend to increase the membership value proposition for IT professionals?

Computer Society Position

To remain viable in today's environment and attract younger professionals, the IEEE president should understand that the Computer Society, as well as the IEEE, need to expand their traditional membership base. To achieve this expansion and reach a new type of practitioner it will be necessary to offer a different type of product and service.

IT professionals require easy access to practical, "how to" information that can be applied to solve their work problems. The most effective approach would be a collaborative, coordinated effort between the Societies and the IEEE. Societies are best equipped to do so as they have traditionally been responsible for creating products and services for the IEEE. The problem is that many times the information remains "stovepiped" within a single Society. Societies rely on their volunteer and member networks. Societies have ties to industry leaders who can offer insights into the needs of diverse industry practitioners.

We need to begin to leverage the true strength of the IEEE as an organization. The Computer Society would ask the IEEE president to support an IEEE initiative in which the IEEE might take the lead and coordinate the activities of different Societies and other entities within the IEEE in support of an IT practitioner outreach program to include the development and coordination of associated products and services.

Moshe Kam

Attracting IT professionals to the IEEE is an important task. It ought to be a primary goal of the IEEE Computer Society. In fact, the need to find a home for IT professionals in IEEE was a principal theme of the "Membership Project" that I led in 2004-2005. I continue to believe that IT professionals are a prime target audience for IEEE.

I believe that the IEEE Computer Society ought to develop a plan and a pilot test to start the process and that a market research project is needed. The project will identify the products and services the IEEE can offer to relevant segments within the IT industry so that they can do their job better; mobilize a core group of volunteers (with strong representation of IT people) to develop these products and services; and devise an advertising and marketing campaign aimed at the IT population.

Pedro Ray

Yes, we shall attract IT professionals as members. My global vision is that the IEEE "shall be a member community and the source of choice for intellectual property in engineering, science, and technology." In that sentence you will see that I make no distinction between electrical engineering and other engineering careers; the same for science and technology. I envision a big IEEE with IT professionals as members, as well as civil engineers, chemical engineers, and so on.

We shall develop practical training courses for professional development and certification programs that are attractive to the IT sector. Most of the published material is too technical and geared toward academia, so we shall develop more content geared toward practicing professionals.

Question 5: Professional Development

An important role and contribution of the IEEE to industry is to improve the caliber of professionals, whether currently employed or about to enter the work force. Professional development activities and continuing education are valued by industry members and their managers and are key to membership retention. However, the IEEE has offered limited products for continuing education, self-directed learning, and credentialing.

In your opinion, how much importance should the IEEE place on professional development for its members?

How can the IEEE help its Societies offer professional development products and services?

As IEEE president, how would you support professional development activities?

Computer Society Position

Professional development and continuing education are important for individual members and their employers. The Computer Society has offered self-directed learning as a member benefit, and it is expanding its software engineering certification program to include a credential for entry-level professionals.

The IEEE can help Societies like the Computer Society by providing resources for market research, marketing and administrative support, and funding for new initiative projects aimed at professional development. The IEEE president can support these efforts by making support for career development and lifelong learning a priority for his presidential year.

Moshe Kam

I believe we need to explore three principal avenues to assist members with professional development.

- Expand the all-IEEE continuing education product *IEEE Expert Now* and make it the IEEE's premier vehicle for high-quality asynchronous learning of the state of the art for practitioners. The product needs to respond to market needs and demonstrate a good balance between breadth and depth.
- Develop a professional **certification program** within the IEEE that will develop, market, and administer certification series based on the needs of industry.
- Expand our professional activities—currently focused in the US—to all of the IEEE. Develop programs customized by career stage and career objectives, and make full use of the Internet for dissemination of information, mentoring, and counseling. Within this effort, re-examine the Graduates of the Last Decade operation to ensure that we provide GOLD members with relevant professional development opportunities.

Pedro Ray

Professional development activities and continuing education shall be critical core activities of the IEEE. As such, I propose the creation of a Professional Development Activities Board, whose main purpose will be to promote continuing education, self-directed learning, and certification programs. Societies play a big role as they are the developers of the content of the programs. But instead of being offered Society by Society, such programs will be offered in a more multidisciplinary format. This format allows for more collaboration between different Societies. Revenues from the program will be shared by the content creators.