



Michael R.
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Levent
ONURAL



James M.
TIEN

From Outsourcing to Plagiarism: The Candidates Respond

BY KATHY KOWALENKO

CANDIDATES Michael R. Lightner, Levent Onural, and James M. Tien, all running for 2005 IEEE President-Elect, presented their views on issues critical to members at the 16th Annual Candidates Night, hosted by the Philadelphia Section in June. The three will be on this year's election ballot, each hoping to succeed (in 2006) W. Cleon Anderson, who will be president in 2005.

Lightner, Onural, and Tien answered written questions from the audience of about 90 people at the Sheraton University City Hotel in Philadelphia, as well as questions submitted earlier by readers of *The Institute* who did not attend. Topics ranged from the outsourcing of U.S. engineering jobs and the recent ruling by the Office of Foreign Asset Control (OFAC) of the U.S. Department of the Treasury, to the presence of plagiarized articles in the IEEE Xplore document delivery system. Philadelphia Section Chair John Sudano moderated the event. Each

candidate had five minutes to answer each question or group of questions.

Several questions dealt with the outsourcing of U.S. engineering jobs to countries overseas.

TIEN said that IEEE members need to understand that each country has to act on behalf of its citizens. But with so many countries and so many different policies, he noted, "There's no way the IEEE is going to have one policy for all of our sections; we can't. On the local level, every IEEE region and section has to support its members." Tien, vice president, Educational Activities, asserted that the IEEE could help its U.S. members stem the flow of jobs by working to create technologies that bring the United States new revenue sources and economic growth. "In the past, engineers have been the engines that helped lift a country's economy," he said.

LIGHTNER, vice president, Publication Services & Products, responded that there were two contributing factors behind the issue of outsourcing. The first he called the "commodification of engineering."

"We are no longer viewed as skilled professionals;

we're hired help," he asserted. "The view of engineering as a profession is being challenged. That is the case in other countries, too, but especially in the United States. Changing that position so that we are viewed not as a commodity but as a skilled and necessary part of the economy of our countries is one key thing we have to do. If that view doesn't change ... we're not in good shape as a profession."

The second contributing factor is an issue for IEEE-USA.

"IEEE-USA, as much good as it has done, has not reached the mass of U.S. members," he said. He called on the organization to immediately start an affiliate program for engineers in the United States who are not IEEE members but who are concerned with the issues. This could increase the profession's clout with the U.S. government and could bring changes on particular issues.

ONURAL pointed out that the rising rate of technically competent people in low-wage countries around the world is the underlying reason behind outsourcing. A former director of IEEE Region 8 (Europe, Middle East and Africa) who also served as IEEE Secretary in 2003, he said the

institute helps members find jobs through its job site and its continuing education programs and materials.

"IEEE members are more flexible than the rest of the engineering world; they have the edge in coping with changing environments and changing jobs," he noted.

He also said that IEEE-USA is best placed to deal with what he calls the "one-way flow of the labor force across the U.S. border." The domain of the IEEE is the whole world, he added, and therefore the IEEE must stay away from making asymmetric policy statements favoring one group of members over another. If necessary, he said, the IEEE could issue globally applicable statements dealing with employment conditions for engineers worldwide.

QUESTION: If you had been president at the time, how would you have handled OFAC regulations that prevented members in Cuba, Iran, Libya, and Sudan from taking advantage of member benefits and services?

ONURAL noted that the IEEE must operate within the restrictions and laws of wherever it finds itself. He is experienced with IEEE activities in different countries, and whenever an event is held, he said, he often worries about the IEEE's compliance with local rules and regulations. "Running a conference in a country other than the United States might be more difficult because of financial and tax issues and rules, but we have to learn to respect them," he said.

Onural said he was surprised when he learned that the IEEE was having a problem with OFAC regulations: "I thought our staff and legal advisors had us in 100 percent compliance with the rules of the United States." He noted that the IEEE may or may not like certain restrictions, but it cannot violate them. It should investigate the issue and be prepared to take action—possibly legal action—to correct what it doesn't like.

"We first should try to negotiate and solve our problems with the government authorities," Onural continued. The IEEE worked with OFAC. It took a lot of time but, he pointed out, "that was part of the process. If we don't like the result, we might continue the discussions, take legal action, or—at the political level—put on pressure to change regulations we don't like."

He believes that in this case, the IEEE acted correctly when it took a stand in favor of the free flow of information among scientists, with no restrictions whatsoever.

TIEN noted that the IEEE has been living under OFAC for 15 years and doing the right thing. "If OFAC told us we cannot publish papers from members living in those countries, I think that would have been different," he said. "But instead OFAC said we could not edit and help these particular authors write a better paper. We edit because it's good for us too, not just good for the authors."

Tien recalled that when he was vice president of Publication Services & Products in 2001 and 2002, he was instrumental in having the IEEE Board adopt a resolution upholding the IEEE principle of publishing all papers that had been appropriately reviewed. With respect to responding to OFAC, Tien quoted Winston Churchill: "It has been said that democracy is the worst form of government except all the others that have been tried from time to time."

LIGHTNER said that, as the current vice president of Publication Services & Products, he is involved in discussions with OFAC. "When we know we're breaking the law or highly likely to break the law, it's incumbent upon us to examine that and understand how to go forward," he explained. "You can agree or disagree with this advice, but you can't ignore what's put in front of you. That is not appropriate for an institution like ours."

The IEEE's goal has always been to support the free exchange of scholarly information, he noted, and to collaborate with colleagues around the world. The tactic the IEEE takes is to work within the confines of OFAC, and if necessary ask it for an exemption.

After much negotiation earlier this year, "we got something pretty good," Lightner said. "The important thing is how we communicated, and the fact that we really were right in what we were trying to do. We were approaching the issue from the moral high ground.

"We were criticized by others in the publishing community, and so we may have looked bad. Going forward, the IEEE needs to be much better at communicating its position to everyone and not be made to look like we have 'mud all over our faces' when we're actually doing the right thing," he said.

QUESTION: What action do you think is appropriate to take against an IEEE member found to have plagiarized another's work?

Plagiarism—the act of taking someone's work, like an article, and passing it off as one's own—is nowadays easier than ever to detect, **TIEN** said, noting that universities and high schools have software programs to detect such incidents. "Plagiarism seems like a big problem because it sounds like it's new, but it's not," he said. "The way we detect plagiarism is new and much more powerful. The IEEE must deal with it right away and not let it go on. We ought to let each person know that plagiarism is against our code of ethics."

"The answer to having more members from other countries is to INVITE PEOPLE IN WITH OPEN ARMS."—ONURAL

Tien explained that plagiarism and copyright issues are not of great concern in some countries, and he suggested the IEEE encourage those countries to "get their houses in order."

LIGHTNER noted that the IEEE has written a new plagiarism policy, along with policies on how to handle the same paper submitted to multiple publications. The IEEE Publication Services & Products Board passed a plagiarism policy in June, Lightner noted. The policy takes into account different degrees of plagiarism—from sloppy writing to authors' names being taken off the original paper and replaced with the names of new authors.

"We have in place what I call the 'Scarlet P,'" Lightner said. "In our electronic database, a plagiarized paper receives a violation notice that is associated with that paper forever. The paper, along with the notice, won't go away. It's not pulled out so it disappears; it's out there for the public to see."

In extreme cases, the Publication Services & Products Board has recommended that a member who commits the violation be brought before the IEEE Ethics and Member Conduct Committee for a hearing.

The IEEE is a highly ethical society and cannot tolerate plagiarism, **ONURAL** stressed. He agreed with Tien that in some parts of the world copyright infringements are a routine part of doing business.

"Therefore, we also have a mission to educate people," Onural said. "The IEEE should do more to raise awareness and to educate people that plagiarism is not acceptable, as well as how to recognize it."

"If somebody detects that his work is plagiarized, it is not an easy matter to fight," Onural explained. "We have

to make it easier for people to come forward and say their work is plagiarized, show proof, and identify the journals so that, in turn, their problem becomes the IEEE's."

QUESTION: Many members outside the United States do not feel the IEEE represents their interests. What changes would you recommend the IEEE make in products and services, for example, for it to become a truly international organization?

LIGHTNER said that he believes the IEEE is already an international organization, but that the challenges the organization faces are with its nontechnical benefits, which are, fundamentally, only for those in the United States. The IEEE is currently investigating financial, insurance, and credit card programs for members in different parts of the world.

As for access to technical information, he pointed out that "the first thing we're doing correctly is providing Web-based access and working with countries to put together consortia that can afford to buy a subscription to the IEEE/IEE Electronic Library," he said. The next thing to be done is to explore whether members want to have regional Web sites in local languages, not in English. Some experiments with this are taking place in Latin America (Region 9). "I think respecting the reason that people join is key," Lightner said. "We're doing that by adding services that provide localized and culturally sensitive access."

ONURAL believes the IEEE is a successful transnational organization, probably one of the most successful, but he questioned whether the membership ratio was at

the desired balance between U.S. members and members from other countries. "We can definitely move the transnational structure of the IEEE to a much better place," he said.

He noted that approximately 35 to 40 percent of IEEE members live outside North America. "The answer to having more members from other countries is to invite people in with open arms," he said. "Make them feel like they are a part of the IEEE, and make it easier for them to get into leadership positions," he continued. "There are volunteer positions in local sections that are easy to get, but there are also other worldwide positions available through societies. We have to make it easier for people living outside North America to get involved at the leadership level, and they will contribute significantly in return."

TIEN emphasized that members should be involved globally for the engineering profession and locally to lobby for membership advantages. "And I include getting involved locally not only through their technical societies but also in the regional sense, through their sections," he said.

He noted that the IEEE has failed to help the profession at the global level. "For example, the IEEE does not take global public policy positions," he said. "We should be able to do that within the scope of our profession. Other organizations should come to the IEEE about technical issues and seek our opinion; we're the knowledgeable experts."

Tien suggested that the IEEE issue public policy statements at its corporate level, because that would span cultures, countries, and regions. He believes engineers would support such positions because each would feel that "I've got to go with my profession and help it make the right decisions on a professional level."

“Instead of continued cost cutting, the IEEE should develop more ways to GENERATE REVENUE.” – TIEN

He sees nothing wrong with IEEE-USA focusing on H-1B visa issues in the United States while other countries focus on their immigration-related issues. “If we want to be global, we’re going to have to deal with issues like immigration,” he said.

QUESTION: How will you balance the budget so that budget cuts will be unnecessary?

ONURAL said he’d spent a lot of time considering this question and believes the answer to balancing the budget is to increase the IEEE’s efficiency.

The IEEE spends US\$240 million a year and must try to find ways to reduce its spending. “Just by considering simple alternatives to what you’re doing, like checking the price of the things you buy, I think anybody can easily reduce their budgets by 5 or 10 percent and still get the same benefits,” he said.

TIEN responded that instead of continued cost cutting, the IEEE should develop more ways to generate revenue. For example, Tien referred to the pilot program now being tested, called XELL (Xplore Enabled Learning Library), which converts short courses given at conferences to courses for online delivery and then makes them available over the Web. He believes that XELL could “rival the IEEE/IEE Electronic Library in terms of revenue.”

LIGHTNER agreed with Tien that further cost cutting is not the answer and increasing revenue is key. He pointed out that the IEEE generates 19 percent of its revenue from membership fees, 50 percent from publications, and 28 percent from conferences. But he noted that all three areas face challenges, and he did not necessarily believe the income projections for XELL.

He said the key was working creatively on membership and member products and services. “How do we increase our activities, get more people to participate, and get more companies to purchase our products for our members who are part of those companies?” he asked. “That’s the way we’re going to raise income, and the only way that we’re going to maintain our strength.”

QUESTION: Do you think the number of IEEE societies [38] is too many, too few, or just about right?

LIGHTNER noted that when he was vice president of Technical Activities and ran meetings with more than 60 people, the number of attendees wasn’t the issue. It was the “asymmetry of membership.” Some societies have 3000 members and others have 100 000, but all have the same number of votes at a Technical Activities Board meeting. The needs of the societies are diverse, Lightner said, and “the impact of changes in product revenue and infrastructure distribution

formulas are also very different. The asymmetry makes effective decision-making and governance very difficult.”

A bigger problem, he noted, was that the societies and the IEEE had no history of strategically halting or combining activities.

“The concern is always on starting something new—a new society, publication, conference, and so on,” Lightner maintained. “We must be able to start new activities, and this includes starting new societies, but we must be willing to stop activities that no longer prove viable.”

ONURAL pointed out that no IEEE policy exists that caps the number of societies. He believes the number the IEEE has “is the right number because we have that number today.”

Onural noted that many societies are too small and getting smaller, and some are thinking about merging with other societies or shutting their societies down. But he noted the IEEE does a poor job of promoting its societies. And by contrast, many societies have too many members, ranging from 70 000 to 100 000.

“If it’s right to have such a large membership within a society, I have nothing to say from the IEEE point of view,” he said. “However, if the society’s leadership believes it has too many members and it is better to split its society, therefore creating more societies, I see nothing wrong with that either.”

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TIEN noted that the technical societies are responsible for discovering emerging technologies, holding conferences, publishing journals, and providing the IEEE's intellectual property.

"I would like to unleash them even more," he said. "I think in the last three years we've not let them spend their own [cash] reserves. They have to get back to what they do best, which is be entrepreneurial."

Tien saw no problem if the number of societies increased to, say, 80, but did agree with Lightner that there should be a way to "kill off those that are just hanging on."

"I don't think size matters as much, because obviously if we want emerging ones, they'll all be small," he continued. "I don't want size to kill them off before they're born. But we've got to be smarter about the way we grow them or change them or merge them. They've got the 'feel of the street.' They know what's going on. We can't centrally control that, and if we did, I think we'd kill their entrepreneurial spirit."

QUESTION: When will we get literature from the IEEE that can be read by practicing engineers? Most cannot read IEEE's transactions.

"Supporting the needs of practicing engineers will require diversifying our intellectual property," **LIGHTNER** said.

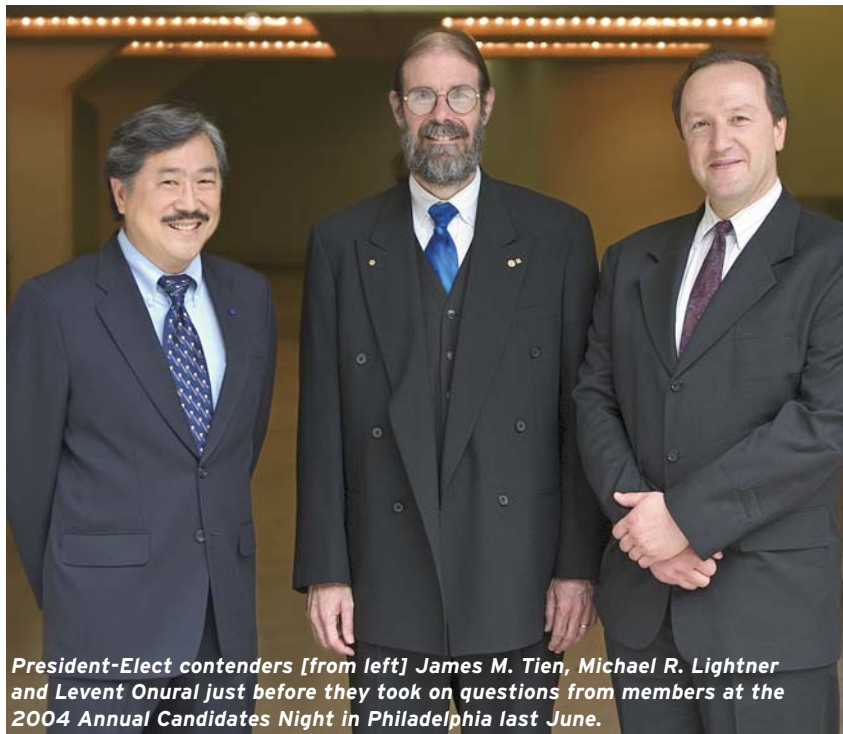
To do this, he believes that journals and magazines should retain practicing engineers to write articles. This is difficult because practicing engineers are extremely busy, they lack support from their companies, and they are not paid to write. Lightner said that the IEEE must either pay these authors like professional magazines do or work with an author's company to demonstrate that the work is valuable—not only for the individual but for the company to appear in a publication as well.

Another solution could be to invest in professionally edited magazines for practicing engineers. "That's what our competitors typically do," he noted. "That's how they succeed. There's enough content from our own IEEE experts and sufficient advertising revenue. But it needs to be managed and written by professional editors. Exploring this possibility is one of the things that's part of the strategic planning effort that's going on right now," he said.

ONURAL pointed out that unlike a business, which must maximize efficiency by giving up unprofitable operations, membership operations must be effective, though not necessarily efficient. "Membership organizations cannot give up on fulfilling their mission, but they have to act in an efficient manner," he explained.

In the past, many attempts were made to publish a readable publication for the practicing engineer, he continued. A recent example was the IEEE-USA's *Today's Engineer*, but it didn't survive in print because of its high operating costs. Membership dues would have to be increased to support such a publication, but such a magazine could be helpful to everybody, Onural said.

TIEN noted that although many of the IEEE societies have tried to publish practical papers, there have been few submissions for many reasons. "However, we should be proud of our membership distribution; other professional organizations would love to have our large industrial membership," he said. "They do attend our conferences and contribute to our conference proceedings. However, not every IEEE product or service can be useful to every member."



President-Elect contenders [from left] James M. Tien, Michael R. Lightner and Levent Onural just before they took on questions from members at the 2004 Annual Candidates Night in Philadelphia last June.

He believes the XELL product will be helpful to practicing engineers because it will present tutorials, not articles. "They'll learn more than by reading papers they can't understand," he said.

QUESTION: Why do you want to be president? What can you do that the other candidates can't? And what is your leadership philosophy?

LIGHTNER said he has the ability to make changes and improvements and to solve problems.

"Supporting the needs of practicing engineers will require DIVERSIFYING our intellectual property." – LIGHTNER

What sets him apart from the other candidates, he said, was the level of creativity he can muster when faced with problems. "I have an ability to look across different areas of an organization and see where you can bring pieces together to create something new," he said. "I have experience across the society structure and the conference structure. Not as much on the regional side, but I've learned much more over the past year."

He said his leadership style is to bring people together to enable them to be creative and address important problems, while freeing them from the constraints of a particular answer with a particular dollar figure. They can create new solutions and new possibilities, he said, which we can then work to implement.

"My style is one of enabling the power that exists among our colleagues to address the challenges and the opportunities of the IEEE," he said.

Onural emphasized that he is confident when making important decisions and believes his future decisions will be the right ones. "Whenever it's time to make a decision, I will think as a member of the IEEE, not as the president of the IEEE," he said. "Opinions could be different, but if I think in terms of members, then I believe I will make the right decision whenever I'm called upon. You will get confident leadership from me."

TIEN said that he had never sought leadership positions in the IEEE, he was always asked to take them on, and his President-Elect candidacy was no different. "Once asked, I have this problem of being unable to say no if I feel that I can make a difference," he said.

Although there were similarities among all three candidates—they're highly competitive, creative, innovative, and dedicated to the IEEE—Tien said his vision of the IEEE is different from the others. "I've always seen the IEEE as my global resource of choice," he said. "It's helped me in my career, and I'd like now to turn around and help other people in the same profession."

In terms of his leadership style, he likened a leader to a servant. "You don't beat people and say 'follow me,'" he asserted. "They'll follow you if they respect you, trust you, and they see you leading by example. I've always been part of the action. To me, the greatest part of being a leader is to be in on the action and work with other people. Not because you say you're a leader, but because you act like one." ●

ON THE WEB

More questions and answers from the candidates' forum can be found on *The Institute* Online at www.ieee.org/theinstitute.

To learn more about this year's candidates, visit the IEEE election site at www.ieee.org/organizations/corporate/candidates.htm.

In addition, each candidate for President-Elect has his own Web site. See:

Michael R. Lightner: <http://ece.colorado.edu/~lightner/IEEE>

Levent Onural: <http://www.ee.bilkent.edu.tr/~onural/PresidentElect2005/index.html>; and

James M. Tien: <http://www.rpi.edu/~tienj/IEEE/tien.htm>