Questions for president elect Candidates

First of all I would like to thank you for the opportunity to answer your questions. I hope this will help you to better understand who I am and what I am and will be doing. Your questions are very smart!

1. President Moura has done a great job of focusing IEEE on members and he has started the organization on a path of greater transparency.

   a. How do you propose to carry on the excellent work started by our current President and how would you improve on his efforts?

      I would embrace the efforts President Moura initiated and together with him I will continue discussion on how to complete what is started and how to improve them even further. I actually already started doing some of this independently of election outcomes. Election is about journey not about a destination. It enabled me to communicate various ideas and offer them for consideration. I spoke to President Jose Moura on a number of occasions in a very engaging way. Since we both originally come from Europe and are both very passionate about this topic we have had very interesting discussions ☺.

   b. How do you feel about what President Moura has done?

      Positives:

      1) Insisted on transparency: financial, governance, information dissemination. This is excellent.
      2) Initiated membership model change: 2M members and new application are a good start.
      3) Technical leadership: serving as a role model for our members, continuing to present his technical contributions and engaging our membership. I was impressed with this.

      Opportunities to improve, build upon:

      1) President Moura, together with the leaders he assigned, is focusing on the engaged authors, organizers, etc. who are not members. He tries to convert them to members. I would broaden the reach of IEEE impact beyond only members and those who are engaged, to the rest of the technical world. There are 25 times more engineers in the world and 50 times more programmers than there are IEEE members. We are not reaching those. And we could reach even beyond that, to all technically minded people. But to do this, we need to demonstrate impact and show the value to them. We are uniquely positioned in the world to do this because of our technically broad and deep knowledge of our members. We now need to deliver new types of value using this knowledge and I have a number of ideas how to do that, some of which are mentioned later.
      2) As a past audit chair, I fully appreciated the complexity of our financial organization. There are multiple views of it. President Moura focused on the view of individual societies. Unfortunately organization and its top leadership still has the top down view which may not account for intricacies of individual organizations (societies, regions, sections, etc.). So, what I propose is to turn this transparency into a management

practice. At any point of time, we should be aware who generates the value and be credited for this. This is routinely done in businesses by optimizing value generated through its organizations. We still do not have that in place.

3) IEEE is a global organization, but many members outside of US do not feel entirely that way. If elected, I would make sure that all regions learn from each other. There are many examples, but let me present an important one. IEEE-USA is exceptional in lobbying in US Congress and Regions 1-6 generate substantial value and revenue. But membership in Regions 1-6 is decreasing. At the same time Regions 8 and 10 are growing, especially India and China, but they still struggle financially and in generating innovative products and services for its members. Why don't we apply some of the lessons learned and best practices from Regions 1-6 and IEEE-USA in other regions. EU is an obvious candidate and easy beneficiary. Because it is so large and fragmented, Asia Pacific is not as easy, but we can act on a country-basis and help our members be more effective. In other direction, can we take some of best experiences from growing regions and help regions 1-6 to regain its membership? There are many other examples.

2. In 2020 the number of academic members is going to surpass the number of industry members, even while industry members as a whole is a much larger group. What do you intend to do to reverse this trend, if anything?

Industry is the first and most important item in my nomination platform, the other two are innovation and global. Industry was focus of most of my IEEE efforts over the past 5 years. I have pursued many specific tangible goals and governance tasks, gradually increasing relevance through meaningful and impactful products (Infrastructure Conference, Confluence Event and Report growing into Cybersecurity Challenge, and many other) as well as connecting disparate IEEE related efforts into a more coherent strategy.

In May this year, I took part in the US Congressional Visit Day, where I lobbied government for the benefit of IEEE standards and also for industry in terms of unified funding of exascale projects for supercomputing across all government labs, so that industry can reduce nonrecurring costs. I am general chair of IEEE Infrastructure Conference, by industry and for industry. Also in May, I organized two workshops on Confluence on applying AI/ML to Cybersecurity and another one will take place in October.

I just came back from India where I gave a keynote at an industry related conference in Bangalore; I then visited multiple universities seeking industry-academia connections. I also spoke to government officials in Singapore and visited industry and academia there too. India and Singapore are fertile grounds for prototyping industry growth in the rest of the world.

This will continue to be my priority in the foreseeable future. It is essential to focus on all three at the same time: academia, government and industry. We cannot neglect one for the benefit of the other. Industry brings important real problems, academia is coming with innovative solutions thinking outside of the box and governments help with funding key initiatives and making sure that regulatory compliances are taking into account.

In addition, we will have to be very innovative in our approaches to re-engaging industry and we will have to be global, not meeting the needs of certain regions is not acceptable, we have to cross benefit for one IEEE and its membership.

3. 78% of new graduates that are IEEE members while in school drop their membership in two years after graduation. What do you intend to do to stop this trend?

Engage students in positions of power and of benefit to them. In the past, attempts were made to reduce fee for the members leaving university and transitioning to work in industry or even give free membership. Free membership means nothing if there is no additional value for students. For example, at the most recent WIEILS event in Porto, I was so impressed with the organization pursued by students and recent Young Professionals. The whole event was organized exclusively by students and YPs. General chair was so young, she cannot even vote for me, she is an undergraduate ☺. But you can see how dedicated there were. They learned so much about organizing events and they felt empowered. I give huge credit to senior leadership who trusted them and empowered them. Engaged and empowered students will not leave. These young members, they will continue to serve and some already have.

In addition to engaging, we should assist them in this transition, offer guidance, connections, coaching by more senior members. Keep them together to share their experience.

4. Papers, patents and society memberships are great, but what is your experience with:
    a. Leading a large organization?

       Size is only one aspect, IEEE is also complex and global (diverse) which when added to being large make it even harder to manage. I have the following experience:

       1) I was president of the IEEE Computer Society, the largest society in IEEE, with the board which is of comparable size to IEEE Board and similar number of VPs.
       2) I was technical manager of the Open Cirrus Cloud Computing testbed, with 16 sites across all regions in the world (Intel, HP, Yahoo, GaTech, UIUC, CMU, CESGA Spain, Karlsruhe institute of Technology Germany, Russian Academy of Sciences, IDA Singapore, MIMOS Malaysia, ETRI Korea, ChinaMobile, ChinaTelecom, Chinese Academy of Sciences). We ran over 200 projects on over 16,000 cores testbed which was huge 12 years ago. I introduced IEEE Open Cirrus summits and we published proceedings for 5 of them.
       3) At work, I regularly lead and manage teams across continents: US, Canada, Brazil, Puerto Rico, Costa Rica, France, India, China, Singapore, etc.
       4) I was running projects that entailed collaboration of over 11 organizational participants across industry, government and universities.
       5) I have recruited and collaborated with numerous universities, such as UIUC, GaTech, Purdue, CMU, Cambridge UK, ETH Zurich, Dresden Germany, from Brazil: University of Sao Paulo, PUCRS, UFCG, and many, many others.

    b. Driving change in an organization?
       I consider myself a catalyst of change, as I documented in my statement. Here are some of the examples to prove the point:

1) I established the IEEE Industry Engagement Committee with the budget, reporting to the IEEE Board. This is an example of industry revitalization and governance change.
2) I introduced Computing Now which was at the time (2010) radical approach to online delivery of the mashups of content. I invented it and I was the first EiC. This was a large change in content delivery.
3) I introduced the IEEE Computer Society Report 2022, which was used for 2 IEEE CS strategic plans, multiple competitions, it was a model for 2030 report by ITRI, and is still referenced in the literature. We are planning new 2027 report, but we also created a number of new products, such special issue of IEEE Computer on this topic. Panel sessions at conferences, etc. This is an example of a change in publishing model, focusing on predictions.
4) I introduced a new award: Spirit of Computer Society, to be awarded every year to a volunteer and staff who exhibit CS behaviors. This is a culture change.
5) I introduced and have been running technology predictions for IEEE Computer Society and broad IEEE. These predictions have had a huge pickup by press and appearance in social media. Over a few million appearances. This is a chance in publishing.
6) I introduced a new boutique event, AI/ML applied to Cybersecurity, which is gathering industry, academia, and government to produce statements and competitions for the benefit of cybersecurity improvement. This is an example of a collaboration change.

c. Relating to the special needs of volunteers?
   1) On a daily basis I am managing and leading teams from many continents and they all have different needs in terms of time zone, distance to visit, culture, etc.
   2) I lived, studied, and worked in Middle East Europe (Serbia), Southern Europe (Greece), Western Europe (Germany, UK), East Coast (Cambridge MA) and West Coast (Palo Alto, CA). I frequently travel to South America and to Asia Pacific (China, India, japan, Korea, Malaysia, etc.). I am very sensitive to cultural and geographical needs of our members.
   3) I have been youth soccer coach for 18 years, holding US National license in recreational soccer and also a few licenses in professional soccer. I learned to understand and work with youth. You cannot fake young players. You have to deeply understand them individually and their individual special needs. It is all about trust.
   4) Over the years, as a manager and as a leader, I did a lot of introspection (I am ENTJ in Meyers Briggs, Driver-driver in social styles, 8 in Enneagram, etc.). This helped me understand others as much as I understand myself and then be able to communicate effectively with them and address their needs.
   5) Most of all, what I understood early on is the concept of "Love them or lose them". If you do not care for who you work with, you will lose them.

5. What are the three biggest issues that IEEE faces as an organization?
   a. Losing relevance to its membership, primarily from industry and practitioners but also to declining membership in Regions 1-6, and to YPs transitioning from universities to profession.
   b. Not serving the needs of our individual and corporate members from industry. Our members from industry declined from 60% to less than 39% in the span of 10 years. We absolutely have to revitalize our membership from industry.
   c. Not modernizing and reinventing ourselves. The young people are gathering more in meetups than in conferences; publishing technical innovation in journals/magazines is replaced by open source code in github and gitter comments; instead of standards, industry prefers informal groups, such as ONNX, MLPerf, with free or corporate membership. We need at least to explore these new options and to evolve our organization towards the needs of our members.

6. In 2018 we started the IEEE Presidents Forum in an effort to help connect top leadership with the membership. Something that was really needed. Do you support the continuation of yearly President's Forum? What would you do to help support this grass roots effort?
   a. Once a year is great, but I would increase it to more than once, using every opportunity such as visiting events and regions to also conduct formal or informal Presidential Fora for presidents communicating with our members. I would also introduce a virtual channel, such as "Ask your President", where presidents can address top questions, concerns and suggestions of our members.
   b. Presidents do not necessarily know every detail of the organization well enough, so this model could be applied to VPs of our major and also staff. This does not mean that we should only be talking, but free flow of communication is essential. At HP we have the "open door" policy where any employee can go to any manager and talk to him. We should enable similar model in IEEE.

7. Attached is the summary slide from the 2018 President's Forum. Comment on the statements from our membership.

   I agree with every single one. I already covered a lot of these in my previous points. But in the spirit of open communication, please reach out to me if I have not covered any of the statements sufficiently. You can find me on Facebook, LinkedIn, twitter, Instagram, or by email or even phone, they all are listed on https://dejan.milojicic.com. Thanks again for the opportunity to answer your questions. I really enjoyed it and I look forward to more communication with your section.