

The Global Power & Energy Elites 2022: Leadership

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Saifur Rahman has had a long and distinguished career in teaching, research and consulting in electrical engineering within the US and internationally, with interests ranging from alternative energies to energy efficiency and blockchain. Saifur is the founding director of the Advanced Research Institute at Virginia Tech, directs the Center for Energy and the Global Environment and is the founder of BEM Controls, LLC, a Virginia-based software company providing building energy management solutions.

WHAT'S THE BEST BOOK YOU'VE READ OR THE BEST PODCAST YOU'VE LISTENED TO THIS YEAR?

I live by the book 'Humans' by Brandon Stanton. It is made up of short stories, each with a unique storyline.

I was born in Bangladesh and I have seen how people progress, the barriers they face and how some can overcome these and others not. In one of the short stories, the grandfather is saying to his grandson that he could not go to school because there was no school nearby but he would go to school to become someone special. On the surface, people have different aspirations but inside they are the same: they all want to be somebody. The author brings out the inner feelings of people from different countries, cultures, religions and backgrounds, which made a strong impression.

WHAT DO YOU THINK MAKES A SUCCESSFUL LEADER?

To be a leader takes time and willingness to learn and develop. You need to earn peoples trust by actively listening, people will remember you for that. You also need to be fair and transparent, while supporting people to become the best that they can be.

WHEN MEETING OTHER LEADERS, WHAT DO YOU ASK THEM?

If it is an informal setting the number one question is 'What do you think made you famous?' and I have had different answers.

The second is: 'If you had a second chance, would you do something differently now you know much more?' The answer in almost all cases is: "Yes if I have had a second chance I would take the time to listen to people."

For me, I go back to the late 70s, when I had a heavy teaching load and was not always able to give every student the time they needed. If I had to do it again, I would be more structured. Rather than answering each student separately, I'd set up a group chat, which is easier to achieve with modern technology and communication.

WHAT TIPS DO YOU HAVE FOR KEEPING A TEAM MOTIVATED?

Firstly, it is important to clearly define and communicate the team's priorities and what you need them to achieve. Secondly, encourage the team to share their experiences, challenges and successes.

For example, it is a common tendency for the younger generations to believe if they have success and bring that to the attention of their boss, they will be recognised and rewarded rather than if it was mentioned by several team members. This is an approach that I do not encourage.

WHAT ARE YOUR GREATEST STRENGTHS?

I am a patient person with a willingness to listen and support whenever I can. Ensuring I am well-connected, building new and nurturing existing relations. I have a big network. Recently a person came to me and asked to be introduced to the college president to enquire about a position on behalf of his brother. Although I didn't feel it appropriate to go directly to the president, I approached the senior professor instead.



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WHAT'S THE BIGGEST RISK YOU'VE EVER TAKEN?

Coming from Bangladesh to the US to study in 1974.

With the internet today, people know America and any part of the world well, but then I had no idea. I didn't know the country, the food, the climate or anybody there. But I said I'll take a risk and go there and hopefully people will be nice to me and I'll be able to get through. I came with a lot of courage, which has worked out well for me.

Two people were big supporters: one was a professor at the university who had a special connection towards Bangladesh. He asked me questions about the country and the civil war and offered what he could do to help me.

The other was a senior in the same dorm, who was also born in Bangladesh. Most people used to cook but I had never cooked in my life. The first day he invited me to have dinner with him and showed me how to cook vegetables and so on. After dinner, he said: 'Here's a pot and pan, go and do it yourself, do not come back!'

WHICH OF YOUR LEADERSHIP SKILLS WAS THE MOST DIFFICULT TO DEVELOP?

One is public speaking, English is not my first language, although engineering books and writing are in English in Bangladesh, teaching was in Bengali. I did not get many opportunities to speak the language but I understood the structure well.

Another challenge was the feeling of insecurity. I was from a new country which was not known for its engineering education. So there was a tendency among my classmates in the US to look down on the quality of education I had received.

I encourage my students to have the confidence to present to an audience and take ownership of their work. They know more about the subject and topic of their work than anybody in the room. I also have them practise the presentation in a group to point out any areas that could be improved.

WHAT'S THE MOST IMPORTANT LEADERSHIP LESSON YOU'VE LEARNED?

The first is to listen carefully and not to react to everything you hear. I tell my students the same thing: you have two ears and one mouth: listen more than you talk. I encourage my students to listen actively in class, and if they have a question while I am speaking, stop me and ask. Do not think of going back to the dorm and trying to figure it out. I want them to leave the lecture fully satisfied, otherwise not to leave the classroom.

WHAT INDUSTRY CHALLENGE KEEPS YOU AWAKE AT NIGHT?

The big issue now is decarbonisation and how the electric power industry will approach this. You see it in Europe; in Siberia, a naturally cool region has experienced terrible fires. What keeps me awake at night is how my students who decide to work within the field can change their way of thinking to take the right steps to slow down fossil fuel-based carbon emissions.

Unfortunately, the answer to this question I often receive is that it is expensive. But they need to see the big picture that spending more money now to reduce the emissions will result in a significant saving down the road. The weak link in achieving all of this is politics. The Kyoto Protocol was implemented in 1992; however, parties with conflicting interests have campaigned against it. As a teacher, I talk about examples of hurricanes and forest fires and people listen. But it takes time. And I fear it is too late.

WHAT DOES ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) MEAN TO YOUR ORGANISATION AND WHAT DOES YOUR ROADMAP TO ACHIEVING THESE GOALS LOOK LIKE?

I have been a university professor for over 40 years and served as the elected president of the Institute of Electrical and Electronics Engineers (IEEE) Power & Energy Society in 2018 and 2019. I have also just been elected as the 2022 president-elect for the entire IEEE and I will be the IEEE president in 2023. Both from the university and IEEE perspectives, ESG goals need to be addressed through transparency; do not let your bias impact your decisions. We should always be ready to explain what, how and why (patience, and willingness) we do what we do.

The 'why' is the hardest part and most people only see the 'what' and 'how'. For ESG, I think we have to focus on the 'why'. It requires time, patience and willingness to get deeper into the issue and in many cases these are missing today.

HOW HAS THE PANDEMIC CHANGED YOUR VISION OF THE FUTURE FOR YOUR COMPANY AND THE SECTOR AS A WHOLE?

For those working in academia, the COVID-19 pandemic has taught us that we can reach a global audience with our educational tools and at the same time connect and engage with a large number of nontraditional students who can also benefit from what we teach and research.

In IEEE, the society will pay my airfare to go to a city or country and the local chapter funds the local expenses. So a small chapter in a developing country was never able to invite me under those circumstances. But now they know all it takes is a couple of hours of my time to give an online lecture and answer questions live. So they are not hesitant to ask. For these courageous peers, I am always willing to take the time to engage with them. It gives young students courage and self confidence when they feel they are being heard. This makes a big difference in the life of a young person.



To be a leader takes time and willingness to learn and develop



During an interview, I was asked the question: "What legacy do you want to leave?" I answered: "The legacy I hope to leave is that someday, someone will say I gave them hope, which gave them the courage to move forward."

HOW DO YOU THINK THE ARTIFICIAL INTELLIGENCE (AI) EVOLUTION WILL CHANGE THE SHAPE OF THE POWER AND ENERGY SECTOR?

The modern electric power system is the largest interconnected and interdependent system in the world with its intricacies and uniqueness.

The applications of AI in the power and energy sector will gradually evolve as AI professionals become more familiar with why the traditional power system has operated the way it has, and design their software to mimic the power system operation.

The power industry, in any country, is the largest physical system, which has become even more complex and outside the capacity of a human being to keep everything in place at the same time. And this is where AI comes in.

As an engineer, I want to ensure that the teams writing the AI algorithms for applications in the electric power sector understand the physical context where they are being applied. I see AI coming to fruition through broad and practical applications where engineers explore and try out new ideas to make the energy sector more efficient and reliable.

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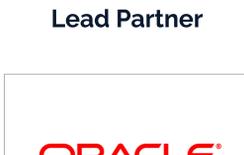
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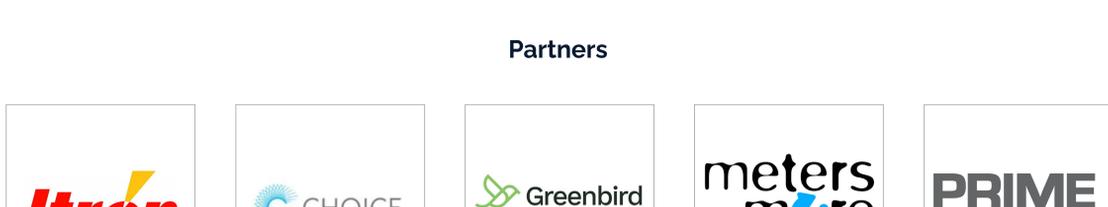
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