

## 2010 SPE President Behrooz Fattahi

John Donnelly, JPT Editor

**Behrooz Fattahi** is coordinator, Heavy Oil Development, Aera Energy, a California E&P company jointly owned by affiliates of Shell and ExxonMobil. He began his industry career in 1977 and subsequently worked as a reservoir engineer, reservoir-engineering manager, and team leader for Osco/Shell International, Shell Western E&P, Shell Offshore, and Shell affiliate CalResources. Before joining the petroleum industry, Fattahi conducted research for the US National Aeronautics and Space Administration (NASA) and the US National Science Foundation and taught courses in fluid dynamics and solid mechanics at Iowa State University. He is a past member of the American Institute of Aeronautics and Astronautics and the American Association of University Professors.

Fattahi has served on the SPE Board as director of the Western North America Region, and as vice president, Finance. Additionally, he has been chairman of the SPE Continuing Education Committee, a member of the SPE President's Learning Initiatives Task Force, and executive editor of SPE Reservoir Evaluation & Engineering, and was chairman of the San Joaquin Valley Section. Fattahi holds PhD degrees in aerospace engineering and mechanical engineering from Iowa State University.



### How did you get involved with SPE?

I joined the oil industry in 1977, working in Iran for Osco/Shell Company. There was an interruption in my SPE membership because of all the events in Iran at the time, but when I came back to the US in 1985 to work for Shell in New Orleans, I became a member again. At the time, I had a passion to work on behalf of SPE but I did not really know how to, and I suspect that there are a lot of people today who have that problem—they want to get involved but they do not know the avenues to take and where to start.

It was not until I began working in Bakersfield, California, in the early 1990s that I really got involved with SPE. One day I received a call from a friend at Chevron who was on the board of the SPE local section and he asked me if I could help him with the continuing education program because he was going to move the next year. And that turned out to be the opportunity that I was looking for. I got involved in that program and, after he left, I was able to become the section's Continuing Education director and significantly increase the size of the continuing education program.

That is how I got started with SPE, by being introduced by another active member. But it was an accidental oppor-

tunity—if he had not invited me, I might never have gotten involved with SPE. That experience taught me that there are probably a lot of people out there who would like to get involved but they just do not know how. They are very smart people, they are dedicated, and they have passion, but they are not involved with SPE. So I want to make it easier for them to become active with SPE, to open up ways for them to get involved if they are interested.

Someone asked me once, “How do you get on the SPE Board of Directors?” I asked him what he had done for SPE and he replied that he had written some papers. But SPE is so much more than that. My suggestion for everyone is to start at the local section level and get involved in the local issues, so that when and if you do get to the international board level, you understand those issues and what local sections are doing and struggling with.

### Has there been any particular experience with SPE that has significantly shaped your view of the society?

I cannot single out just one; every moment working with SPE has been significant. My passion is meeting people,

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talking with people, and seeing how I can help them. I have benefited from SPE, and I want to give back. And I hope that every member will feel the same way.

**You have had a well-rounded career, working in the oil industry, teaching, working with government agencies, and being active in community issues. How have those experiences shaped your views?**

By education I am an aerospace engineer and a mechanical engineer, having received bachelor's, master's, and PhD degrees in aerospace engineering and a PhD in mechanical engineering. During my graduate work, I taught several courses at Iowa State University, including mathematics, aerodynamics, and fluid mechanics. I enjoyed the teaching environment because I thought I was making a difference in people's lives. My research work at Iowa State University was sponsored by NASA and the US National Science Foundation. Shell hired me because of my work with numerical simulation techniques, and sent me to work in a team in Iran that was writing simulation models for reservoirs. That is how I got into the oil industry and what later led me to become a reservoir engineer.

Graduate school teaches you to be persistent as you develop your research, identify problems, and systematically search for answers. In some ways that training helped me to look for ways to get involved in volunteer activities. I became active in city of Bakersfield issues and also helped set up the Kern County Oil Exhibit with funding from the state of California. I was selected to participate in the Leadership Bakersfield program that exposed me to various issues in my community. All of those experiences helped me in SPE because they taught me how to work with people and get them excited about doing things.

I have found that SPE—because it is a member-driven organization—is a great place for someone with passion. The Society cannot work well and perform its mission adequately if it does not have volunteers who are motivated and genuinely willing to get involved.

**What will be your main goals as SPE President?**

In reflecting on the themes and goals of several past SPE presidents, I concluded that all of these worthwhile goals could not be achieved without the volunteers to implement them. You cannot advance SPE's mission without dedicated, passionate volunteers. SPE has great programs and services, but how do you disseminate these programs to every

member everywhere? We have to rely on volunteers on the ground everywhere, and we have to look for innovative ways to disseminate our programs and our services.

My passion, then, is to organize the volunteer part of our Society into an organization that can do its work well and do it very efficiently. When you go to work, you are exchanging your skills for pay. When you volunteer, you do not have monetary expectations, so that is where you demonstrate your character and your values. You are motivated to do better because you are displaying what you are all about.

Volunteers also benefit from this interaction with SPE. They build their leadership skills and, using their knowledge and experience, they influence the planning of technical programs and other SPE activities. Other benefits are networking with peers and encouraging students and young people to join the ranks of industry professionals.

So at the top of my list is ensuring that we recruit the right volunteers with the right skill sets for the right positions, and that we inspire them to work for our members everywhere in the world. And that can be done by telling volunteers what type of opportunities we are offering and what kind of expectations there are, and ensuring that volunteers are qualified, committed, and passionate.

**How do you make volunteerism more effective?**

With SPE, similar to any organization, optimization of processes is fundamental. Organization and efficiency should be the name of the game. You have to identify waste and eliminate it from the process. We should constantly challenge ourselves about how to do things better, and faster, and how we can be more productive.

That process optimization may be something simple you do in the office every day or it can be a substantially complicated process involving a publication or setting up conferences at the SPE organization level. SPE has processes at the section level, the committee level, and the board level and we want to ensure that we are conducting our business in the most efficient way we can with the least amount of waste involved. Otherwise, there will be duplication and wasted time and effort, and that leads to disappointment. This is quite important in how well the Society works and delivers its services, and it enhances the productivity of our volunteer workforce by optimally using their precious time in producing results for SPE and our members.

Recently, we conducted a process-optimization exercise for our peer review system, which resulted in significant

improvements in the paper review process, for example. I intend to examine the volunteer work process within our organization. We have approximately 5,000 members worldwide who volunteer at various levels of the SPE organization, from sections to international committees as well as for the international board of directors. This is a large force. Without their help, we are not able to generate and optimally deliver our products and services. We need to have a process in place through which we can identify highly qualified volunteers, recruit them, establish commitment and accountability, and retain and reward them. I recently created the 2010 President's Task Force on Volunteerism that is made up of members of the staff and some current and past members of the international board. The task force is charged with creating the process of organizing our volunteer workforce structure as I just described. I am excited about the work of this task force, and we should see the results within the next 12 months.

### **What are the toughest short-term challenges facing the oil and gas industry?**

The biggest challenge is the management of human assets—we are running short of talented people. Global demand for oil is increasing and the supply is dwindling, so we need a lot of skilled people and we need them quickly. In the old days, we had mentors and we had time to ask tons of questions and gradually learn the business. Today, young people are hired one day and sent to the field to do the real jobs the next, without much mentoring. While we look for good people to come into the industry, we have to focus on our experienced workforce as well. They are the carriers of knowledge and experience, and in the next 5 to 10 years, we will lose 50% of them. Losing that expertise is a big threat to this industry and to its desired growth. We have to redouble our effort to get people into the industry, train them, and get them ready before all of the experience and knowledge leaves, so that we can have some interaction and some overlap.

The second challenge is technology, from development to application. The oil and gas industry does not have the time to develop technology and then contemplate its application. That is not acceptable today; we do not have that luxury any more. That is why SPE has made dissemination of emerging technology a high priority. This industry needs to shorten the time from technology development to application in the field.

Collaboration is essential. Today's problems are too complex to be resolved by individuals. Companies often work on complicated problems and develop solutions on their own, but just imagine how much wasted effort and duplication there is when each of us works separately. I am proposing that all of us get together and develop these technologies together. All of us are smarter than just one of us. Once a technology is developed, the business competition can start, and companies

will be rewarded by how rapidly and how well they implement the technology in the field. We need to work together, and SPE can help in this effort. The easy oil is gone, and what is facing us is difficult oil in difficult environments.

We also need to better manage the risks and uncertainties that exist in our industry. A year ago, who could see the situation we are in today? In terms of business activity cycles, this business is not any different from other industries, such as aerospace or electronics. We have to fully understand the elements of risk around us. Some are political, some are geographical, and some are social. If we understand them well, then we can manage them well, and mitigate their adverse impact.

We also have to continue to work on the petroleum industry's image. We do not have a good public image, at least in some parts of the world. That is partly because we have not presented our side of the story very well in the past. We are beginning to be more proactive, but we need to do significantly

more. To help the situation, SPE has started a big effort on public energy education with its Energy4me program. We have to show people that we are good citizens of this planet, and that we devote huge resources to protecting the environment, and that we care about people. We have to aggressively educate the public. Energy is the fundamental ingredient of our quality of life today—we cannot live without it. Petroleum is not only a transportation fuel, but it is a raw material in so many things that we casually use every day: electricity, computers, transportation, medicine, and the clothes we wear. And our industry is the source of those.

### **How should individuals approach the current age gap in the industry?**

For those of us who are approaching the end of our careers, it is up to us to spend as much time as we can mentoring young professionals. When my generation came into the industry, there were people to help us, and now it is our turn to give back. I would ask our more senior members to continue supporting and sponsoring SPE. If you are in management, allow your people to attend conferences. If you are in the technical ranks, share your knowledge and experience, write and present papers, and mentor others. When you retire, still stay with SPE. Do not cut off your participation—we still need you.

At the same time, young professionals need to be demanding of the senior professionals and their management to get them trained and to send them to conferences and technical meetings. To this age group, I say do not get comfortable with the status quo—push out of your zone of comfort. Sometimes the best way to learn is to dive in and start swimming. You may swallow a few drops of water but you come back to the surface, take a breath, and dive and swim again. You learn by mistakes, and you will remember your lessons forever.

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**Do you think the current economic downturn and recent fluctuation in oil prices will have any long-term impact on the industry?**

Yes, there will be an impact. We will be even more behind in meeting the future demand for energy. When oil prices reached almost USD 150/bbl, although tempting, most of the industry did not really get into big spending based on that kind of price. We had learned from our previous experiences. I am quite optimistic that the current economic situation is short term, particularly based on what I am hearing from leaders of the industry through SPE's Industry Advisory Council or from the senior management that I meet as I travel around the globe. What I am hearing is that we should start getting back on track by the end of this year and at the latest, 2010. Of course, everyone cautions that we should not be expecting to reach the USD 150/bbl mark any time soon.

The good news is that the oil industry is the best industry to be in today. Every industry is going through this downturn, but once we are out of it, the oil and gas industry will be the place to be. We are short of people and there will be lots of opportunities for college graduates and young professionals to jump in and get their feet wet. The global demand will be there as well.

**One thread that has run through SPE's history is globalization and its international growth. How do you see that trend continuing to develop?**

There is no end to globalization. Our world is changing before our eyes. The question is whether SPE can keep up with the change. SPE has expanded quite a bit in the past few years, opening new offices in Dubai and Moscow, for instance, and it was not that long ago that we opened other offices outside the US. We still have other places to go to and grow—Africa and Latin America, for example.

In the short term, we have to get better in the ways that we deliver our services to our members, through the Internet and in getting more members to actively participate in SPE. In the long term, as SPE grows in other parts of the world, there will be immense challenges. Today, for example, we have approximately 14,000 members in the Houston area, but in the future we will find many of our members in more remote areas—on offshore platforms or in sparsely populated areas such as the Arctic. So we will have to be innovative in reaching people and providing services to them. SPE sections of the future will not be able to conduct business in a conference room; their business may be done primarily through videoconference or other technologies, and some may be participating while on a platform or in the jungles

somewhere on this planet. That is our challenge—to get technology to work for us so we can deliver high-quality services to all of our members everywhere. That is the essence of globalization. Globalization does not end with establishing an office in this country or in that one. It also means that every local section will need to act as an agent of SPE and to disseminate the programs and services to every member. All members are part of our community, and they deserve the same quality of service regardless of where they are.

**As the former vice president of Finance on the SPE Board of Directors, how would you assess SPE's financial health?**

SPE's financial health is very good. We have generated a healthy amount of money through our conferences and meetings—70% of our income comes from here—which helps fund other programs and member services that we subsidize. We now have a financial advisory committee that helps us protect our assets so that we can continue to provide programs and services for many years. I also feel good that we have plans in place so that if the economic downturn is longer than we expect, we can still survive and do well.

While we have done well with our meetings, we have to develop other ways of generating income so that we can continue to subsidize our member services with more confidence. That is something the board is aware of and is looking at.

Sometimes it is difficult for people to understand why we have to charge for certain programs or services, such as meeting registration or publications. We keep our dues very low so that membership is affordable to members everywhere. Dues make up only about 14% of our income. So, to provide scholarships for students, to fund our Distinguished Lecturers program, and to support the myriad programs for which we receive little or no income, we have to charge for some services.

**In summary, what messages do you have for our members?**

We all work in a great industry. It is global, it is complicated, it is high-tech, and its problems are challenging. Challenges, however, are opportunities to create success and our industry offers tons of these opportunities.

Our Generation Y professionals are entering the industry in quite interesting times. The new work environment is far more demanding and will constantly challenge their ability to innovate and adapt. So, they have to take it upon themselves to define their role, find their place, and stay relevant. They have to constantly prepare themselves for the ever-changing and more challenging future. This is a tough expectation, yet not an impossible one. We have to remember that success is not an accident. We have to create success on purpose.

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It is a privilege."*

Our experienced professionals are preparing to leave the industry in masses. In the next 10 years, approximately 50% of our industry's workforce will retire and fade away. This is a huge loss of skilled human resource, experience, and knowledge base, and will have a profound effect on the industry's growth. My message to this age group is to show leadership by sharing experience and knowledge, finding the time to mentor the young and inexperienced, and setting an example of excellence by giving back to the industry.

Our professional society celebrated its 50th anniversary in 2007. For all those many years, and most prominently in the last 5 years, SPE has grown significantly to become one of the most global professional societies. At year end 2008, we had 90,000 members in 66 countries. There are more than 170 sections and some 200 student chapters around the world. We offer a variety of products and services, from technical meetings, conferences, and short courses to public energy education, a mentoring program, technical books and journals, and on to scholarship and other outreach programs. And most importantly, we have a very dedicated and hard-working SPE staff who are there to provide our members with the best quality of SPE services worldwide.

Mark Twain once said, "Twenty years from now you will be more disappointed by the things you didn't do rather than the things that you did." So if you are not a member, join SPE now and recruit others. If you are a member, get involved and become a volunteer. SPE's volunteer work is a serious business. Commitment and producing results are the key factors for a successful association with SPE. Always remember that volunteer work for SPE is not a favor. It is a privilege.

Finally, I believe that our industry is well-poised to step into an exciting future. Despite immense challenges ahead, we will continue to grow globally as demand for energy increases. There will be many challenges ahead but challenges also offer ample opportunities. As in the past, we will experience many uncertainties, but we will face them with determination. John Richardson, a professor at the American University in Washington, once said, "When it comes to the future, there are three kinds of people: those who let it happen, those who make it happen, and those who wonder what happened." Our industry has repeatedly proved its versatility, resourcefulness, and resilience to rise to the challenge—we will make it happen.

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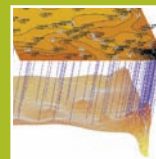
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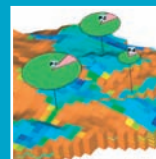
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