

# Pat Ryan

**Executive Director**  
at IEEE PES

Interview with **Pat Ryan**

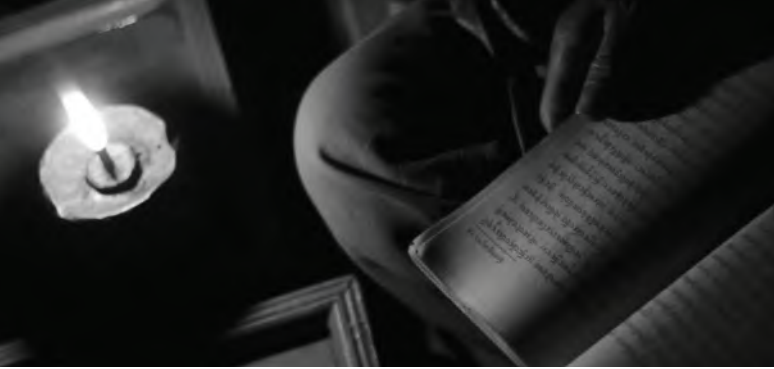




## Announcing the IEEE Smart Village Initiative

Pat Ryan, Executive Director at IEEE Power Energy Society, is talking about IEEE Smart Village, an initiative with the goal to help bring electricity to all.

**Did you know that 938,400,000 people in the world live in energy deprived environments? Our Editor in Chief Alan Ross met up with Pat Ryan, Executive Director at IEEE PES, to discuss a new initiative within IEEE Power Energy Society that is empowering change – the Smart Village Initiative.**



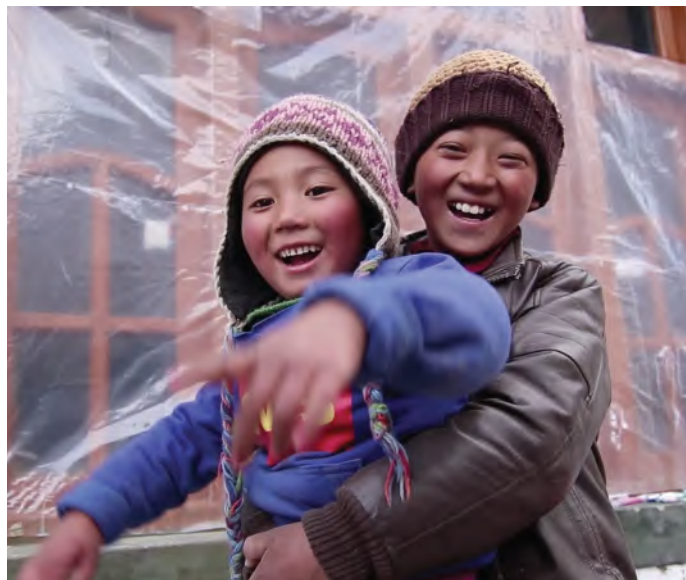
**Alan Ross:** Our very special guest in this edition is Pat Ryan, Executive Director at IEEE Power Energy Society. In this interview, we will talk about a very important thing and something near and dear to Pat's heart, and that is **the Smart Village Initiative within IEEE Power Energy Society.**

Welcome Pat. I know this is an initiative that is near and dear to your heart. Would you tell us a little bit about Smart Village?

**Pat Ryan:** Yes, this is very close to my heart. Smart Village is an IEEE program that is basically humanitarian and has the goal to address three points. The main point is to **bring electricity to those who have none around the world.** And the focus is mostly on off-grid - you could even say way off grid. These sites are not even close to being connected.

If you look at a village in Haiti or Africa or India, these are some of the prime areas that we are working in. We look to bring electricity to them. It is typically a renewable energy, PV - a photovoltaic solar system that we are bringing there. But there are three important components that go with that. Normally, we test the village, testing its interest in having a mini grid, but also for **sustainability** - will they be able to pay some small amount to keep an entrepreneur going who would establish and maintain this mini grid?





Then, of course, finding an entrepreneur who is interested in having a micro utility is a critical part for sustainability. Without that **business model and an entrepreneur**, you can put in a system that will no longer work in six months unless you bring in expatriates to maintain it. So, sustainability is critical.

And the third part of that, as we bring the electrification and the entrepreneur mode, is to **empower and provide education**. As part of the micro utility system, we may help with the education in the community - by powering up a school for example, and helping bring in computers and internet and curriculum; whatever the need might be to help, we support that village, again, from a sustainability standpoint.





It's a very cool program. National Geographic highlighted one of our programs in the Himalayas for a monastery.

If you look up their archives, you can see a video of a project where they are carrying things in by donkeys through the passes; young monks with TV panels on their backs, carrying them into position and wiring up, and the amazing celebration of that village to have that resource when it was all done. This included an education system with standalone hard drives, with massive amounts of education material on them for the local school there. Because it is so incredibly remote, these resources were extremely valuable to them.

**Smart Village is an IEEE-wide program.** We partnered and are partnering with people around the world to make this happen. It is a huge volunteer effort where volunteers run it all - from every aspect of technical support to program or entrepreneur support, to education support. So, **if you are interested in supporting an awesome humanitarian program, there is a spot available no matter what you're interested in.**





**PR** Yes, I think they are both the same thing. We are working with the World Bank right now to implement some education programs. We are in discussions, but we are not locked in yet. The part we are focused on is to have an extension there - educating people on how to operate, how to design. Using that same experience from the Smart Village Program and scaling that educationally for about 2,200 projects that they are proposing around the world for these off-grid situations. If you just look up [IEEE Smart Village](#), it will pop up immediately. This is a great opportunity for people to really make an impact. And very quickly it will touch your heart, because this is very empowering for those villages.

**AR** Pat, people will find this initiative because I think you have hit a nerve. I mentioned it to a number of people in my circle of influence and they were all excited about it. This idea is life changing. In my own volunteer world, we drill wells in places where water is life, and making it sustainable is also an issue we deal with. There needs to be somebody on the ground making sure that access to this fresh water does not become a political or stumbling block.

**AR** So, to all of my brothers and sisters within IEEE Power Energy Society, and to all of them in the Reliability Society, let's get behind this one. I think this will be a defining program for IEEE, so that we take the best of what we have, the technology that we have, and we collaborate.

Thank you for leading this effort Pat. I knew it was a passion of yours.

The idea that the first world and the developing world can have an impact on a Smart Village is incredible. You called it a mini-grid - meaning it is for a location versus a micro-grid, which might be for a city.



Photo: Paula Bornstein, IEEE