The Association for Interactive Media Education (AIME)
6451 Alamo Ave. #1E | Clayton, MO 63105

atetv.org

Transcript: Episode 39 / June 21, 2010

Coming up next on ATETV. Electrical engineering.

If I didn't go to school, there would be no way that I could just come out here and do what I'm doing now and at the level that I'm at.

Emerging energy technologies.

Solar, wind, hydrogen, whatever the next wave of new energy technologies is going to be, we're going to require people who are technical experts.

And fuel cells.

Fuel cells basically can be applied to any application or market where, where you think of power being used.

Now, on ATETV.

From across the country to your own backyard, ATETV shows you the many advanced technological education opportunities available at your local community college. ATE programs offer students a strong technical skill set and hands-on experience.

We're off to meet John Evans, a graduate from Florence- Darlington Technical College, who got a leg up in his career in electrical engineering thanks to his advanced technological education.

My name is John Evans. I'm a technician at ESAB Welding and Cutting Center. We do a lot of math, a lot of calculating, a lot of formulas in order to reach your voltages that you need. The science part of it's the theory and the, you know, the getting a basic knowledge in, in your mind.
The way of thinking, troubleshooting, that type of stuff.

My technical college education helped me get a high-tech job. You had to put forth a lot of studying, a lot of effort, hands-on at Tech was very, very valuable. Get our ohm meters out, and we check voltages. We go across resistors, check for resistance. Ohm out different type boards.
Make sure everything's operating correctly. Once we put a circuit together, we actually designed circuits while we were in our technical labs.

I would definitely say the internship helped me out tremendously. I would go to school in the morning then I would come here. So while I was at school, I could, you know, I was doing hands-on work then I would come here and do hands-on work again. So it was, like, doubling what I was doing, you know, and sticking in my mind really well. If I didn't go to school, there would be no way that I could just come out here and do what I'm doing now and at the level that I'm at. There's no way someone just off the street could come out here and do this without going to technical college and getting a technical background.

John got a great classroom education and on-the-job internship experience that allowed him to hit the ground running in his new career. For more information about similar electrical engineering programs, be sure to visit your local community college.

The Association for Interactive Media Education (AIME)
6451 Alamo Ave. #1E | Clayton, MO 63105

atetv.org

From wind to solar to hydrogen, the emerging energy technologies all share the need for skilled technicians. Advanced technological education programs are designed with input from industry to help students meet the demand of tomorrow's workforce.

You have the humidity sensor right here.

I think that the ATE program is uniquely able to respond to the, the call for new energy technologies. Solar, wind, hydrogen, whatever the next wave of new energy technologies
is going to be, we're going to require people who are technical experts.

That has power.

What I'm looking for is students with initiative and ambition and smarts that are going to fit into areas like technicians and service personnel, installation personnel that, you know, have good hands, good minds, you know, don't need a lot of direction, can see things and are willing to kind of participate and say, hey, we could do it better this way.

You can rotate this and set it at different, different distance here.

Right.

All the universities and colleges that we work with have a very focused approach
of aligning educational curriculum with industry needs.

It's a program that's very flexible, very adaptable, and has the ability to really figure out where the workforce needs are today and tomorrow and to address those needs very quickly.

It's extremely challenging technology, too. It's not, it's still developing. OK. So it's not completely
baked yet. So there's a lot of opportunity to, to advance the technology, and, and put your fingerprints on advancing the technology. The energy industry, looking at energy technologies in general offer a lot of opportunity for people to reinvent themselves. And I think, you know, if you,
whether you're starting your career or you're, you're advancing an existing career but looking for something new, I think there's a lot of opportunities around the energy industry collectively.

There are tremendous career opportunities in new energy technologies. And advanced technological education students can help shape the field and make the world more sustainable.
For more information in new energy technology programs, be sure to visit your local community college.

Another example of new energy technologies is fuel cells. A more efficient and environment
friendly source of power, fuel cells have a wide range of applications, and that means a wide range of career opportunities for students. Take a look.

Fuel cells is a form of alternative energy. You'll hear of solar, you'll hear of wind, you know, biomass. You hear of different types of alternative energies. Fuel cells is just one form of that.

Mine has power.

We'll have to find out what that distance is. We really didn't calculate ....

The Association for Interactive Media Education (AIME)
6451 Alamo Ave. #1E | Clayton, MO 63105

atetv.org

Fuel cells basically can be applied to any application or market where, where you think of power being used. So whether it's, you know, the power to move an automobile or the power to, to light up a building, or put electricity on the grid, powering a ship or an airplane, I mean, fuel cells have, have broad-ranging application. Transportation, stationary power, mobility power, you name it.

Fuel cells are the future. It's getting the, the most amount of energy from the same amount of fuel.

Some of the fuel cell systems that we're looking at right now for our company, in particular, are going to be portable fuel cell applications. So in other words, UAV's unmanned aerial vehicles, unmanned ground vehicles. So everything from very small portable microfuel cells to large stationary power.

You're not burning the fuel. You're chemically reacting to fuel. It's got a nice environmental footprint to it.

We have the opportunity with the technology that we're creating to make a significant impact on our environment in the world.

Right now, with this increasing population, the burden on the natural resources, crude oil, coal is, is increasing more than ever. Our technology would help ease that burden. Energy is a global issue.

We decided here at Stark State to look at the fuel cell piece of it, but if you look around at, at, across our nation, you'll see wind programs, solar programs, biomass programs.

What we're doing can leave a, a good footprint on society in general.

This is the energy which can ease global warming and clean our environment and give us healthy lifestyles.

Fuel cell engineers will help transform not only the technology itself but the entire world. For more information on fuel cell programs or anything you've seen today, explore our website at atetv.org.

Thanks for watching.