

Sandina Ponte, University of Missouri

Sandina Ponte, a 2003 graduate of industrial and manufacturing systems engineering, is one of the students who continues to benefit from what she learned as part of the program. Ponte worked with IAC during graduate school and currently works in Jefferson City, MO at ABB INC., one of the largest transformer manufacturers in the world.

“People say they want to improve their energy efficiency, but they don’t know how or don’t have the resources so it’s on the bottom of their list.” Ponte said. She goes on to say, “I am institutionalizing the IAC current procedures and making them fit ABB. This is a multinational, so we will have to standardize for 100 or more countries.”

IAC Roots

Sandina Ponte’s relationship with the University of Missouri IAC began well before she served as lead auditor, or performed her first IAC assessment. As an undergraduate at the University of Missouri studying industrial engineering, Sandina knew she wanted to pursue environmental and energy efficiency issues. The professor who served as her advisor and mentor during this time was Dr. Bin Wu. After completing her undergraduate work, Sandina continued graduate research in tandem with full time employment as an industrial engineer at The ABB Group. All the while, she remained in contact with her



Sandina Ponte examining the nameplate of an HVAC system on assessment

Courtesy of University of Missouri



Sandina Ponte, IAC alumnus from the University of Missouri

Courtesy of University of Missouri

former advisor, Dr. Wu. It wasn’t until after the Industrial Assessment Center established a center at the University of Missouri in 2008, with Dr. Wu as the center director that she had an opportunity to learn about the IAC. Sandina’s initial introduction to the program was through an IAC assessment she scheduled for her company. When the audit team arrived and began their work, she knew she wanted to be involved in this program. Sandina spoke with her mentor, IAC director Bin Wu, picked up her graduate work in earnest, and joined the MU IAC. Sandina saw the IAC as a perfect place to join her academic knowledge and research work with hands on experience in the field of energy efficiency.

Though Sandina was already focused on energy efficiency before joining the IAC, her participation in the program still had a noticeable and positive impact on her career track. It was working with the IAC program that gave Sandina the confidence to apply her research knowledge in an audit environment and adapt best practices to the particular situations and needs of individual companies and make those best practices relevant for specific clients. Sandina acknowledges that the IAC was an incredible resource for the role she is in now and she would not be where she is today without her IAC experience.

Sandina recalls how the audits she performed while part of the IAC team gave her knowledge in many facets of engineering and areas of technical expertise, some of which she wasn’t experienced with before. She acknowledges that the exposure to such a wide spectrum of engineering and energy efficiency areas

“Sandina’s education and experiences in industrial energy efficiency are a direct result of her involvement with the Missouri Industrial Assessment Center. This clearly illustrates the IAC Program’s long-term impacts regarding the education and training of next generation of energy-savvy workforce.” —*Dr. Bin Wu, Director, University of Missouri IAC*

broadened her knowledge base well beyond what she could have attained in the classroom. Sandina also notes that, “The IAC gave me whole process awareness and understanding, as well as the ability to effectively communicate that understanding to others.” She states that her participation in IAC audits completed her knowledge base by allowing her to see the entire picture and really understand how all of the individual components come together within a facility.

Career Highlights

Sandina has been with the ABB group for more than 8 years. She began her career there as an industrial engineer. However, since participating in the IAC during her Graduate work, she has received two promotions and is now the Sustainability Controller (and the lead on energy efficiency) for Business Unit Transformers.

Sandina’s success at ABB is directly related to her IAC involvement. It was a comprehensive IAC assessment she sought out for an ABB Factory that



Courtesy of University of Missouri

MolAC members with Rutgers field manager team. Pictured left to right: Chatchai Pimthuprapa, Bin Wu, Sandina Ponte, Don Kasten, Tao Qu, Sanjeev Khanna, Bichen Barnett Zheng, Lexie Kim and Blake Boyer.

brought to light significant energy saving recommendations that could be implemented at various ABB locations. Sandina took the assessment recommendations to her superiors and successfully argued for their implementation. Sandina recalls that initially “I wanted to do this in 22 factories. My manager agreed, but only if we expanded the scope to make it a company-wide effort.” The energy efficiency initiative that Sandina created is now being rolled out at over 120 ABB sites around the globe.

Focus on the Future

As she moves forward with her focus on energy efficiency, Sandina will be responsible for ensuring that any new construction at ABB is in compliance with energy efficiency best practices. She will also be collecting base line data from plants and establishing a process and value chain from supplier to customer to determine how the entire system can be more energy efficient. Next year, she will focus on logistics and look for energy efficiency and sustainability improvement opportunities in the supply chain. She will also cast a keen eye on process improvements and how to make day-to-day processes as energy efficient as possible.

Sandina continues to maintain an effective working relationship with the University of Missouri IAC. She intends to have current members of the MU IAC involved with her projects at ABB so that she may now assist in educating future generations of energy efficiency engineers.

A Strong Energy Portfolio for a Strong America

Energy efficiency and renewable energy will mean a stronger economy, cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy’s Office of Energy Efficiency and Renewable Energy (EERE) invests in a diverse portfolio of energy technologies. The Advanced Manufacturing Office (AMO) within EERE is the lead government program working to increase the energy efficiency of the U.S. Industrial Sector.

ABOUT THE IAC PROGRAM: A program area of AMO, the Industrial Assessment Centers (IACs) provide eligible small- and medium-sized manufacturers with no-cost energy assessments. Additionally, the IACs serve as a training ground for the next-generation of energy savvy engineers.

ADDITIONAL INFORMATION:

EERE website:

www.eere.energy.gov

AMO website:

www.eere.energy.gov/industry/

IAC student forum

website: www.iacforum.org