

INDUSTRIAL ASSESSMENT CENTERS

Success Story



SHARING A WEALTH OF KNOWLEDGE: INDUSTRIAL ASSESSMENT CENTER ALUMNI

SPOTLIGHT ON THE IAC PROGRAM

Originally created to focus on energy analysis only, all the centers in the Industrial Assessment Center network have now been trained to calculate energy costs as well as assess methods to reduce waste and increase the productivity of manufacturing facilities. Teams of students visit manufacturing plants with a faculty advisor and conduct a one-day assessment followed-up with a report to the company outlining their recommendations. On average, about 50% of those recommendations are adopted by the manufacturers and lead to an annual average savings of nearly \$55,000.

“The students themselves become assets DOE has invested in and the dividends are dispersed throughout the United States in a cleaner environment, heightened awareness of energy efficiency and pollution prevention, and a stronger more productive U.S. manufacturing sector.”

— Bill Richardson, Former Secretary of Energy



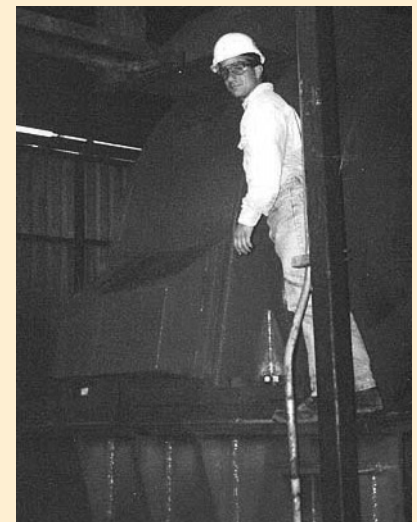
MICHAEL BRASOVAN—TEXAS A & M IAC PROGRAM GRADUATE

The Department of Energy (DOE) has been investing in the U.S. manufacturing sector one student at a time. As sponsor of 26 Industrial Assessment Centers located at universities across the United States, DOE trains over 250 students a year in energy efficiency, productivity improvement and pollution prevention practices and technologies. A recent survey shows that one out of every four graduates of the IAC program stays in the field and continues to help manufacturers save energy and reduce costs. In 2000, it is estimated that all program graduates combined saved over 15 trillion Btus¹ for the year. Since the program’s inception in 1982, it is estimated that 1,700 IAC graduates have generated a cumulative energy cost savings of \$769 million and energy savings over 115 trillion Btus.

During his two years of participation in Texas A & M’s Industrial Assessment Center program, mechanical engineering student Michael Brasovan gained real world experience by being part of a team that audited over 30 manufacturing plants in Texas. Today, eight years after his graduation, Brasovan directly attributes his successful career to the knowledge and experience gained during his days with the IAC program.

A REWARDING, HANDS-ON LEARNING EXPERIENCE

Texas A & M IAC alumnae Michael Brasovan examines an 8,000 hp crusher motor during one of his 30 audits he performed at various manufacturing plants in Texas.



¹ A Btu or British thermal unit is a quantity of heat needed to raise the temperature of 1 lb. of water by 1° Fahrenheit. Btus can be used to quantify the energy embedded in electricity, oil, and gas.

"The experience I received during my years with the IAC program was invaluable and prepared me extremely well for my current position," Brasovan commented. First as Director of Energy Projects for Fowler Energy Company, and now as Director of Energy Procurement with Carter and Burgess he is involved primarily in keeping tabs on regulatory and market developments related to retail and wholesale competition implementation in Texas and other states. He then uses that information to help his company's clients save money by negotiating with utility providers to obtain the lowest rates in competitive and regulated environments.

"One of my responsibilities at the IAC was to thoroughly analyze and recreate the electric and gas bills of the plants we audited. This helped me to become very familiar with different utility rate structures and how end users incur costs," Brasovan said. Since graduation, Brasovan's clients saved over \$14 million through energy rate reductions.

Brasovan credits the IAC program for teaching him two important lessons. "Not only did I gain a deep understanding of how energy was used in the manufacture and production of goods and materials, I also learned how to communicate well with clients," he explained. "This ability to listen and understand their plant processes and energy concerns has proven to be a great asset."

In addition, Brasovan believes his participation in the IAC program gave him a better perspective on his classroom learning. "After working in the IAC program, all of my other class work started to become much more meaningful to me because I had seen it in action," he added. "The value of the technical training—particularly in the areas of energy savings and energy cost calculations—was key in preparing me for my career."

Michael Brasovan is proof that the investments made in the IAC program continue to pay dividends long after the participants leave the program. "I believe that the IAC program is a success not only from a student aspect, but from a cost benefit point of view also," he summarized. The program achieves its goals by increasing plant energy efficiency and energy cost savings through audits and helps to develop engineers that continue on to careers in the field of energy management.



The IAC Program provides energy, waste, and productivity assessments to help small and mid-sized manufacturers identify measures and plant and office designs to maximize energy efficiency, reduce waste, and improve productivity. The analyses are performed by local teams of engineering faculty and students from 26 participating universities across the country. The service is provided at no direct cost to participating companies which meet qualifying criteria:

- gross annual sales below \$100 million;
- fewer than 500 employees at the plant site;
- annual utility bills of more than \$100,000 but less than \$2.0 million; and
- lack of in-house professional staff to perform the assessment.

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The IACs serve a population that might otherwise miss out on the benefits energy efficiency, pollution prevention, and productivity improvements can yield small and mid-sized companies. There were 407,249 manufacturing establishments employing less than 500 employees in the United States in 1994. These companies used 8,552 trillion Btus annually.

