

Vol. I, No. 1

IAC Alumni

NEWSLETTER

October 1997



WELCOME! This is the premier issue of the IAC Alumni Newsletter, sponsored by the Office of Industrial Technologies (OIT). OIT is part of the Department of Energy's Office of Energy Efficiency and Renewable Energy and works side by side with specific industries, trade associations, research organizations, universities, national laboratories, utilities, and State and Federal agencies to achieve both national and industrial goals. OIT's successful partnerships within both public and private sectors have helped find numerous opportunities for energy savings and pollution prevention.

OIT programs and activities for research, development, and deployment of advanced technologies are designed to increase energy efficiency, prevent pollution, and improve productivity. OIT's research focus is on energy supply technologies, industrial process improvements, and pollution prevention technologies.

Remember the EADC Program? Say "Hello" to the IAC Program

The Federal Government has been funding industrial energy audits for small and medium sized manufacturing firms under the auspices of the EADC program since 1976. Three major universities took the first steps to what has now expanded to 30 universities across the country. The program is funded through the Office of Industrial Technologies of the US Department of Energy. At its inception, the EADC program focused strictly on the minimization of energy consumption. Beginning in 1994, the EADC program expanded into areas of waste minimization and pollution prevention. Six centers were initially given the chance to minimize waste in America's small industry sector. In 1995, 21 centers began this approach when, in 1996, all current 30 universities were performing a combined energy and waste assessment. The program took one more major step in

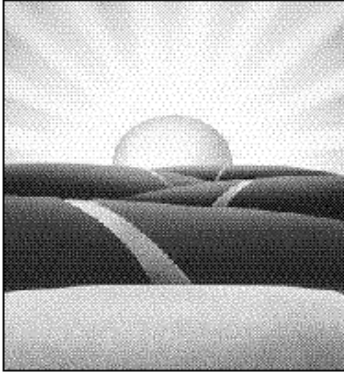
1997. Enhancing productivity of today's manufactures has widened the focus of the program. The EADC program and its "energy audit" has grown up to become more aptly named, the Industrial Assessment Center Program. The assessments are still performed by teams from engineering schools at the 30 universities which are made up of faculty and students. The team continues to perform a one day site visit at an industrial plant which follows an extensive pre-assessment data gathering function. Following the site visit the team prepares a report for the manufacturer which has several assessment recommendations which are written up with sufficient engineering design to provide for anticipated savings, implementation costs and anticipated payback times. Historically, nearly 50% of these recommendations have been implemented by the company. As has always been the case, the assessment is provided to the manufacturer at no cost.

What's Inside

- ◇ Dr. Henry Does 500
- ◇ Tech Access Takes Off
- ◇ Visions for the Future



A Vision For the Future



The Office of Industrial Technologies has developed a strategy called the “Industries of the Future” that has created an alliance between government, industry, and research facilities. The partnership was developed to help accelerate technology research, development, and deployment in seven of the major energy consuming industries. These seven industries account for more than 80% of the total energy consumed in manufacturing and more than 90% of the total waste produced in manufacturing. The seven industries that have been identified as the Industries of the Future are aluminum, chemicals, forest products, glass, metalcasting, petroleum refining, and steel.

The strategy was designed to provide an innovative approach to help the industries address broader goals in the areas of energy efficiency, competitiveness, environmental issues, job creation, and technology development. With the industries working toward common goals it allows the better alignment of governmental research and development of new technology with the industries interests in mind. Communication between all participants allows for positive interaction and team efforts to shorten times required to move new technologies to the market place. The coordination between the industries is an essential requirement in order to keep the manufacturers in pace with the rest of the industrial world. Presently of all the Industries of the Future only the chemical industry spends more in research and development than the national average which is approximately 3.2% of sales. The rest of the industries are spending less than half of the industrial average which shows the need to coordinate efforts toward the common goals.

Presently the program is in place and working with the industries to create cost-shared solutions that address the industries’ needs which in turn is helping the country by decreasing environmental problems and allowing companies to compete more effectively.

OIT Launches Technology Access Partnerships for Industrial Excellence

Leaders from diverse industries have asked for assistance in identifying and adopting systems technologies and solutions for energy efficiency, pollution prevention, improved productivity, and enhanced product quality. In response to these needs, DOE's Office of Industrial Technologies (OIT) has created the Technology Access Partnerships for Industrial Excellence. The Partnerships provide information on available technologies, cross-industry mentoring, and an array of services and support. The Partnerships will complement the Office of Industrial Technologies' Industries of the Future strategy, the close collaboration with seven of the Nation's

most energy- and waste-intensive industries. The Partnerships will help companies to identify applicable programs, resources, and technologies suited to their needs. Industry and the Nation will benefit through improved resource productivity, a cleaner environment, and enhanced competitiveness through the following programs:

- ***Industrial Assessment Centers (IAC)***
- ***Motor Challenge***
- ***National Industrial Competitiveness through Energy, Environment, and Economics (NICE³)***
- ***Inventions & Innovations***
- ***Steam Partnership***
- ***Climate Wise***



“Ironman” Henry Chuang Performs 500th Assessment

Dr. Henry Chuang, Director of the University of Dayton Industrial Assessment Center conducted his 500th assessment on June 26, 1996. Atlas Roofing of Franklin, Ohio was the lucky recipient of the visit on this momentous occasion. Accompanied by Dr. Michael Muller and Don Kasten of Rutgers University, the field managers, Dr. Chuang recommended over \$115,000 savings in energy, waste reduction, and productivity improvements, most of which have been implemented.

Known as a bit of a maverick, Dr. Chuang applies a very personal approach to his work. He eases concerns by plant managers by assuring them that he is not there to cause trouble and has no qualms about involving upper management, as he did at the Atlas plant - asking a top manager to hold a bucket while he and his students measured the flow of water. By seeking the active participation of upper management, Henry believes the implementation rate of his center benefits - a fact that is borne out year after year. He is particularly proud of the fact that he and his students are often asked to “do lunch” with the clients.

He has earned degrees from the National Taiwan University, the University of Maryland, and the Carnegie Institute of Technology. In 1972 he proudly became a citizen, and in 1980 he was

invited to join the Energy Analysis and Diagnostic Center program in the first wave of expansion. In the first year he conducted fifteen audits, but in



subsequent years he conducted forty per year (he points out that there were no word processors, way back then).

An avid golfer, Henry retired from teaching in 1994, while maintaining to be a very active auditor, often outlasting the students. This August 1, (coincidentally just before the Directors’ meeting) Dr. Chuang turns the reigns of the center operations over to Dr. Kelly Kissock, and we look forward to a long and prosperous relationship with Kelly. Finally, after seventeen years of leading one of the most successful IACs, we would like to say “Hats Off” (and Hawaiian shirts on) to Dr. Henry N. Chuang.

Industrial Assessment Centers

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Bradley University Dr. Paul Mehta (309) 677-2754	University of Arkansas at Little Rock Dr. Mamdouh Bakr(501) 569-8228
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Texas A&M University Dr. Warren M. Heffington(409) 845-5019	West Virginia University Dr. Ralph W. Plummer (304) 293-4607

Coming Events...

- Oct.28-29** Advanced Turbine Systems
Conference, Morgantown, WV
For info, call (304) 285-4750
- Nov. 9** How to Reduce Energy Costs of Industrial
Electric Motor Systems, Birmingham, AL
For info, call 1-800-VP-IDEAS
- Nov 19-21** World Energy Engineering Congress,
Atlanta, GA
For info, call (770) 447-5083
- Apr.21-23,
1998** Industrial Energy Technology Conference,
Houston, TX
For info, call Jim Eggebrecht at (409) 845-
1508
- Aug.23-28,
1998** ACEEE 1998 Summer Study on Energy
Efficiency in Buildings, Pacific Grove, CA
For info, <http://aceee.org>

**Would you like more
information about the
IAC Alumni Newsletter?**

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