



January Meeting

Imaging Technology for Mass Customization and Reverse Engineering: Trends and the Challenges

The talk will focus on HYTEC's development of new imaging technology that is being developed to enhance industry's ability to quickly build mass customized products, and will give details from both a technical perspective and a business perspective.

Tim Thompson leads HYTEC, Inc., a Los Alamos Company that provides engineering services as well as sensors and imaging products for a variety of markets throughout the world. During its seven-year history, the firm has become a contractor to many prominent scientific organizations including NSF, NIST, CERN, DOE, LANL, NRL, NASA, MIT, and Caltech. HYTEC has developed new technologies that dramatically improve key capabilities within the non-contact inspection, visualization, and imaging industry. On behalf of HYTEC, Thompson accepted the 2002 Flying Forty award from Technologies Ventures Corporation this past March. This award is given each year to the forty fastest growing corporations, in the state of New Mexico.

ASME Lunch Meeting

When: January 15th, 2003

Time: 12-1

Where: Otawi Side Room A, Los Alamos National Laboratory

Food: Get your own lunch at the cafetiria and join us for the talk

Northern New Mexico Section

Chair: Richard Browning, (505) 667-4618

Vice-Chair: Mark Miller, (505) 665-0706

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Industry Relations: Catherine French (505) 667-4581

Membership: Bob Meier, (505) 667-8586

Message from the Chair:

There are some very interesting aspects to serving as the Section Chair. One of my favorites is receiving copies of newsletters from other Sections in the Region. They all reflect the enthusiasm and interest in furthering the engineering profession that is the foundation of the ASME. In addition the choice of talks reflects the needs and interests of local industry.

While the Laboratory is by far the largest employer in our Section I believe our Section should try to publicize the smaller companies in this area. Our January meeting will feature Tim Thompson talking about imaging technologies developed by his company Hytec Incorporated. We are looking for additional talks about projects in smaller companies. Please send any suggestions to me or one of the other board members.

We have executive committee meetings about once a month and anyone may attend. If you are interested in attending, or better yet volunteering to help with the Section operations, please contact any one of the board members. The rewards of participating include opportunities to attend regional meetings such as training sessions and administrative conferences. Meeting people from other areas is very interesting. I hope everyone will have a Happy New Year.

Richard Browning

Interested in Nominating A Colleague for Fellow?

Recognize a colleague's engineering achievements by nominating a member for the grade of Fellow. An ASME Fellow is one who has attained a membership grade of distinction at the time of advancement. The member shall be a corporate member of the Society, shall have been responsible for significant engineering achievements, and shall have had either not less than 10 years of active practice and 10 years of continuous corporate membership in ASME, or 20 years of active practice and 5 years of continuous corporate membership in ASME.

To get additional information on nominating a member to the grade of fellow, log onto <http://www.asme.org/member/fellow/index.html> or call John Beck at 212-591-8463.

Your Email Address – The Key to ASME International and the Northern New Mexico Sections

Did you know that your email address is the key to what's happening at ASME? By providing us with your current email address, you can learn about events taking place in our local section, such as professional development courses, industry tours, section meetings, lectures, networking opportunities and technical conferences.

Updating your email address online only takes a few minutes. To access your membership information, go to www.asme.org. Click on the "Members Only" tab to log onto this site. Be sure to have your member number on hand. After logging on to Members Only, select the "Change of Address and Information" link, located on the upper right-hand side of your screen. From this screen, you will be able to update your primary contact information.

So don't miss out on all that ASME has to offer! If you have any questions about your membership information, contact InfoCentral at

Parting Shot

At the start of last year, the executive committee agreed on an agenda that included three goals; completing our transition to section, activating an ASME Fellow nomination process, and providing a local ASME short course. Our report card grades are A+, B and C-, respectively.

Due to the diligence of our executive committee and the section members (thank you for your signatures) we successfully completed the transition to section. Our efforts to establish a committee to review our local ASME Fellow nominations were also successful and the members are making significant progress toward our next ASME Fellow nomination. Unfortunately the proposed course could not be scheduled last year but we hope to hold a GD&T class by early summer at Los Alamos.

Our section goals and activities cannot come to fruition without the help of you, the members. I would like to take this opportunity to thank the section members and executive committee members who donated their time to section activities during the last year; *your contributions are greatly appreciated*. I believe this section is contributing to our professional well being as engineers and I am confident this year's executive committee will continue to engage in quality programs and activities.

Mark Miller

Distinguished Lecturer

ASME Distinguished Lecturer Series, featuring Dr. Frank Kreith (Dates, times, and prices may be changed)

Saturday, June 14th, Los Alamos Senior Center

5:30-6:00 Social hour and cash bar

6:00-7:00 Dinner (\$10 for members and guests that have attended 3 or more

ASME meetings or lectures over the last year, and \$25 for others)

7:00-8:00 Lecture

After a career in teaching and research, Dr. Kreith holds the position of ASME Legislative Fellow at the National Conference of State Legislatures where he serves as the technical advisor to all fifty state governments in the areas of energy, waste management, and transportation. While in Los Alamos, Dr. Kreith will be speaking on a subject in which he has developed a new and quite personal interest, as he describes below.

Thermal Treatment of Cancer

Two years ago, I was diagnosed with squamous cell cancer. The surgeon told me that he could excise the tumor by conventional surgery but if I were willing, he could try to remove the cancer by hyperthermia, a treatment method that had been used successfully on animals. I agreed to the experimental cure proposed by the surgeon and have had so far no recurrence.

However, the instrument that the surgeon used was very crude, and for the past two years I have conducted research directed to applying MEMs technology to improve the instrument and the procedure. Our research has yielded insights into the biological processes by which controlled heat can kill cancerous cells without harming the healthy tissue. We have also learned how to use radio frequency, microwaves, and ultra-sound to heat tissue. My talk will describe the current status of using hyperthermia for cancer treatment, and the technologies for measuring tissue temperature and controlling the heat in a clinical setting.

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