PES/IAS Meeting
Tour and Technical Presentation of:
Applied Thermal Sciences, Inc
Sanford, ME
Tuesday, September 25, 2001

Applied Thermal Sciences, Inc. (ATS) has its roots in the University of Maine, Orono Incubator Program, stemming back to 1989. In 1998, Mr. Karl Hoose, founder and President, decided to relocate to Sanford, ME and incorporate. At this time there were two employees. Today ATS has 24 employees (14 technical), with well over 100 years of combined engineering experience.

ATS has grown to occupy two separate facilities, with a combined footprint of 6300 sq. ft. of office space, and in excess of 9400 sq. ft. of lab/test space. ATS’s goal is to make itself one of the premier engineering research development firms in the industry. There research applications in computational fluid dynamics, finite element analysis, and advanced composite materials, have enabled them to win contracts and grants from various agencies within the DoD, NSF, NASA, State of Maine MTI Program, and private industry.

In attesting to its versatility, some, but not all of the current projects the ATS engineers are working on are: Scramjet design, fabrication, and testing, High Power (25Kw) laser welding, innovative composite I.C. engine, and advanced carbon composite transmission conductors.

AGENDA:

Tour: 3:30 - 5:00 PM. The tour will begin promptly at 3:30 so that we may visit both facilities

Social: 5:00 - 5:30 PM

Dinner: 5:30 - 6:30 PM. $20.00 ($10 for students)

Technical Presentations:

6:30 - 6:40 PM
Karl Hoose, ATS President
Welcome and Brief introduction to ATS

6:40 - 7:30 PM
Bernie Clairmont, Sr. Research Eng./Project Mgr., EPRIsolutions, Inc.
EPRI’s Increased Power Flow Projects

Jack Smith, ATS Exec. V.P.
National Science Foundation support of ATS’s Advanced Carbon Composite Transmission Conductor Project

Directions to ATS:
Take Exit 2 off the Maine Turnpike. After paying toll, take a right and follow Rt. 109 to Sanford. Go approx. 7 miles. You’ll see a Super 8 Motel on your right, ATS will be the next building on your left (look for Gallo Construction sign, ATS is slowly taking over the building). If you see a small 2-door fire station, you just passed ATS.
**Chairman’s Message**

**Welcome Back!**

*by Brian Conroy, Chair*

Well, it seems like just last month we held our annual meeting in Orono, but that was back in May. We’ve enjoyed our short but sweet summer here in Maine and now we’re gearing up for another successful fall program of activities. It’s not that everything stopped for the summer here in the Maine Section. Three important activities that were accomplished since our annual meeting were:

- Valeria Bernier, our Graduated of the Last Decade (GOLD) Chair and Junior Member at Large, attended the national Professional Activities Committee conference;
- Our revised Section bylaws were accepted and ratified by the Region; and
- George Elliott, our Newsletter Editor and Professional Activities Committee (PACE) Chair, attended the Region 1 Board of Governors’ meeting and officer training.

Our fall schedule of programs is starting to come together. Later in this issue you will find the meeting announcement for a tour and talk about Applied Thermal Sciences, Inc. in Sanford. Also in the works are plans for our annual Magic of Christmas Social and a fall meeting of the Communications Chapter. Stay tuned for more fall meeting to be announced in upcoming issues of the Beacon.

I hope you have enjoyed your summer of 2001 and I hope you will attend and enjoy some of the IEEE meetings in the fall of 2001. I’d like to meet more of our members and I’m sure you would enjoy the evening.

Sincerely,

Brian Conroy, Chair

P.S. If you have any topics or tours you’d be interested in, please drop me a line at 791-1023 or brian.conroy@cmpco.com and we can set it up for you!

---

**Senior Member Benefits**

*Editor’s note: The Maine Section members are doing a much better job of taking the important step of upgrading their membership to the Senior Member grade. Those of you (and there are plenty) who have not taken the initiative to apply for Senior Member grade, please read the following announcement and make that move now!*

Have you been an electrical engineer for at least 10 years? Then why not apply for Senior Member status in the IEEE and get some well deserved recognition for your accomplishments? The senior member grade is the IEEE’s distinguished title for professional technical excellence bestowed by your professional peers. Being a senior member also can be a plus when interviewing for a position, seeking a promotion or requesting conference travel.

Each newly-elected senior member now receives an engraved IEEE senior member plaque made of wood and bronze (a $25 value) that any member would be proud to display. Application and nomination forms can be accessed online at: [www.ieee.org/organizations/rab/md/smforms.htm](http://www.ieee.org/organizations/rab/md/smforms.htm).

Senior membership is good for the profession, it’s good for the IEEE and it’s good for YOU!

---

**Project Management Institute (PMI) of Maine Invites Participation of Maine Section Members**

The Maine IEEE PES/IAS chapter and the Maine Chapter of PMI had a very successful joint meeting last April on the topic of project cost and risk management in engineering, procurement and construction (EPC). Steve MacIsaac, the President of the Maine Chapter of PMI, has graciously invited all interested Section members to receive the PMI Newsletter by sending him an e-mail at: STEVO1945@worldnet.att.net.

Steve would also like our members to be aware of PMI’s certification training program to become a Project Management Professional (PMP). Apparently the training classes meet on two consecutive Saturdays during the spring. This year they were held at UNUM Provident Headquarters Building No.1 on Outer Congress Street in Portland. The cost was $475 per participant. Details can be found by visiting the PMI web page at [www.pmi.org/chapters/maine](http://www.pmi.org/chapters/maine). This sounds like a good opportunity for Section members who want to improve their management skills.

---

**New Senior Members**

The following Section members were recently elevated to Senior Member status:

*Cristian Domnisoru*  
*David E. Kotecki*  

**Congratulations!**
Maine Section Executive Committee Recommends Arthur Winston for IEEE President

The Maine Section Executive Committee (ExCom) once again recommends that Section members vote for Arthur Winston for IEEE President-Elect 2002.

Arthur Winston has a long and distinguished record of service to IEEE members in IEEE Region 1 which includes all of New England and New York. The ExCom feels strongly that Art would be the best candidate to serve the interests of Region 1. Perhaps a representative at last month’s Region 1 meeting in Niagara Falls, NY said it best; “If we can get the majority of IEEE members in Region 1 to vote for Art, there is a good chance that we can elect ‘one of our own’ to the IEEE Presidency”.

Professional Activities Report

by George Elliott

IEEE-USA, the professional activities portion of the IEEE, has organized a project for the purposes of building relationships between engineers and members of Congress and raising congressional awareness and appreciation of science and technology. The project is called the Congressional Advocacy Recruitment Effort (CARE). The major goal of CARE is to have IEEE U. S. members pay a constituent visit to every U.S. Senator and Representative in their District office sometime during the 107th Congress (2001 - 2002). The CARE project also encourages a wide variety of interactions in addition to traditional visit, such as congressional involvement in National Engineers Week, participation in tours and demonstrations, and member involvement in local Town Hall meetings, etc.

I have volunteered to meet with District 2 Representative John Baldacci. We now need volunteers to meet with Congressman Tom Allen and Senators Susan Collins and Olympia Snowe. If you do decide to become a CARE volunteer, here are the major steps you would need to take to carry out your assignment:

- Pick an issue or activity that is timely, of personal interest, and relevant to the congressional district
- Research and prepare
- Make an appointment
- Have your visit
- Follow-up with a thank-you (and any promised information)
- Report back to IEEE-USA using the on-line form

Some tips for successful visits are as follows:
- Research your issue and plan your visit
- Try to make visit in district office
- Be a constituent, not an IEEE representative
- Be prompt and patient
- Ask for what you want
- Be prepared, be personal, be responsive
- Keep track of time and plan your exit

CARE Project information is available at the CARE website [http://www.ieeeusa.org/forum/care](http://www.ieeeusa.org/forum/care). In addition to pledge form and report form, there are also useful resources including a guide to arranging a successful congressional visit, and a Powerpoint presentation of CARE.

Norm Augustine once remarked, “Engineers today seem to be the stealth occupation .... if we as engineers are unwilling to responsibly speak out on issues within our realm of expertise, who then will?” The CARE project accepts that challenge. But to succeed, it needs Maine Section volunteers. Please accept the challenge and volunteer to make a visit. Please let me know if you do volunteer (gelliott@eece.maine.edu). Thanks.

University of New Mexico Microelectronics Graduate Courses Available on Videotape

The University of New Mexico has chosen IEEE to be its sole distributor for three Microelectronics graduate courses. Managers and practicing engineers in the manufacturing industry will benefit from these videotape series because of the professional lectures and state-of-the-art information. Each course contains thirty 75-minute lectures, with an emphasis on practical application rather than theory. The courses are:

- Microelectronics Reliability #HV7048
- Microelectronics Failure Analysis #HV70597
- Microelectronics Test Engineering #HV7047

and the University of New Mexico believe that these products will equip the industry with the most recent microelectronic advances. Check out full descriptions of these courses at the online IEEE Store at [http://shop.ieee.org/store/](http://shop.ieee.org/store/)
Beacon Publishing

The Beacon is published on a monthly schedule based upon the need to advertise upcoming meetings. All material submitted for the Beacon must be received by the editor no later than the 15th of the month preceding the issue in which it should be included. Sorry, NO EXCEPTIONS!!

Send articles to:  
George Elliott, Editor  
University of Maine  
5708 Barrows Hall, Rm. 15  
Orono, Maine 04469  
207-581-2350  
gelliott@eece.maine.edu

Circulation issues? See:  
Stan Koski, Circulation  
Central Maine Power  
Edison Drive  
Augusta, Maine 04336  
207-626-9870  
stanley.koski@cmpco.com

www.ieee.org/maine

The Beacon

Nonprofit ORG.

U.S. POSTAGE
PAID
Augusta, ME
Permit No. 0024