

**ETD Section Activities Report
January 2006**

**Jerome Tapper
Northeastern University
Boston, MA**

Northeastern University – School of Engineering Technology, Boston, Massachusetts

To: Ronald Rockland, ETD Chair
From: Jerome Tapper
Subject: ETD Section Activities Report

January 15, 2006

Ron,

In preparation for the ETD section activities report to be given at the 2006 ASEE/CIEC Conference meeting in San Antonio, Texas, please find enclosed a copy of the activities material I have received to this point in time as of the last meeting, the ASEE Annual Conference in Portland, Oregon in June.

Best regards,

Jerry Tapper

College of Engineering
School of Engineering Technology

Electrical Engineering Technology

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CALL FOR SECTION ACTIVITIES

ETD Activities *Local - Regional - National - International*

“We want to know about it !!!”

EXAMPLES:

Conferences:

- Local conferences hosted or will be hosted by your institution or any that your ETD colleagues from your institution have attended.
- Regional conferences hosted or will host by your institution or any that your ETD colleagues from your institution have attended.
- National conferences hosted or will host by your institution or any that your ETD colleagues from your institution have attended.
- International conferences hosted or will host by your institution or any that your ETD colleagues from your institution have attended.

Events:

- Educational events hosted or will be hosted by your institution or any that your ETD colleagues from your institution have attended.
- High school/vocational school events sponsored by, hosted or will host by your institution or any that your ETD colleagues from your institution have attended that helped to promote and further the theme of Engineering Technology. Such events as Science Fairs, Industry visits, are good examples.
- K-12 events sponsored, hosted, or will host by your institution or any that your ETD colleagues from your institution have attended that promoted the theme of Engineering Technology.
- Honor society (TAP) events locally, regionally, nationally or internationally that your institution has hosted or colleagues from you institution have attended.

No event is too small or too local. The purpose of letting us know this information is two fold. First, it allows all of your fellow ETD colleagues to know what is going on nationally within other ETD programs across the country. Secondly, it helps to promote your own institution by putting you institution's name in front of thousands of colleagues across the country. There's nothing like free advertising.

As byproducts of letting us know what you are doing, the ETD Newsletter will also be used to disseminate this information to ETD colleagues across the country. Again, more free program and institutional promotion.

Please let us know what you are doing. If your submitted information is not included in a current edition of our activities report or News Letter due to timing constraints, it will be included in the next edition of both informational instruments.

Sincerely,

Jerry Tapper & ETD Activities Colleagues
ETD Board Member - Activities

The following ACTIVITIES material was received:

ASEE St. Lawrence Section Section Meeting:

**St Lawrence Section November 3, 2006 - November 4, 2006
Cornell University, Ithaca, New York**

ITEM -1

The ASEE/ETC Engineering Technology Leadership Institute was held at the Rochester Institute of Technology from October 1-4, 2005. This was an excellent program, thanks to both the ETLI executive committee and the RIT folks. The model used was similar to that used last year at Houston, where most of the program was a set of two concurrent workshops. Attendees participated in small group activities, after an introduction to focus their thoughts.

The attendance was 55 three-day and 10 one-day paid registrations. Ten of these were new to ETLI. We also had 8 other RIT people participate in the program and two spouses develop their own program. The one-day registration was a trial to determine if we could build additional attendance, particularly from newcomers and those whose travel budgets did not allow a full conference.

The one issue with the ETLI was that the normal rap session did not happen with a significant number of attendees. These "engineers" were too busy enjoying Artisan Works.

A very special event was the very first ET Dean's Roundtable. Thirty five deans attended, plus the speaker and one guest. Reports indicate that this roundtable went very well and will be repeated.

The Tau Alpha Pi Student Leadership Conference was held on the same weekend, with seven students attending. Reports suggest that this should be sponsored by TAP but be open to leaders chapters of all student organizations.

Submitted by John Stratton

ITEM - 2

NYSPDC Newsletter FALL 2005

This Newsletter contains a great insight into what is going on at the following schools:

[SUNY Oswego](#), [Mohawk Valley Community College](#), [Fulton-Montgomery Community College](#), [Dutchess Community College](#), and [Hofstra University](#)

The newsletter was too large to publish, but is well worth getting. They are doing great things at these schools so please see if you can get a copy of this material:

[Jerry Tapper](#)

For more info contact:

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New York State Professional Development Collaborative
Hofstra University
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ASEE St. New England Section

Section Meeting:

New England Section March 17, 2006 - March 18, 2006
Worcester Polytechnic Institute
Worcester, Massachusetts

ITEM -1

New England Section



750 Chase Parkway • Waterbury, CT 06708

Rick Weber
Naugatuck Valley Community College
Manufacturing Engineering Technology Program
12/19/05

Activities related to NSF Grant - Regional Center for Next Generation Manufacturing (RCNGM)

Activity #1

March 7, 8, and 9, 2005

School to Career Symposium sponsored by the Manufacturing Council of the Waterbury Chamber of Commerce and funding through the RCNGM to the Connecticut Business and Industry association.

Students from the High Schools and Middle School in the Waterbury Region of Connecticut were shown actual manufacturing processes from CAD/CAM design, Tool and Die, Coil Sheet Metal, Stamping, Metal Finishing, and Final Assembly. The students also were given a presentation on career opportunities in all the aspects of the manufacturing field including sales and marketing. My activity involved coordinating the sessions on CAD/CAM.

Activity #2

April 8-9, 2005

ASEE New England Section Conference at Fairfield University (Connecticut)

Participated in the presentation by Karen Wosczyzna-Birch on the NSF grant activities that included a discussion of Bridge courses for students transferring from a Community College Engineering Technology program to a 4-year Engineering program. Examples were given for student transfers that I coordinated from Naugatuck Valley Community College to the Engineering programs at Fairfield University.

Activity #3

May 20, 2005

Attended Conference: Next Generation Manufacturing an Outlook for Southern New England
The conference focused on the tough decisions for manufacturers in southern New England. Attended workshops on Lean manufacturing, Supply Chain Management, and Workforce training and Development.

Activity #4

June 2005 to Present

Externship at Branson Ultrasonics in Danbury Connecticut.

Through the RCNGM grant, an externship was established for me to learn the newest methods and equipment for ultrasonic welding. Through the grant, equipment was also donated to my Manufacturing Engineering Technology program at Naugatuck Valley Community College. I am still actively working on projects for Branson Ultrasonics. All projects and activities are being incorporated into the Manufacturing Processes course of the MET program.

Activity #5

July 11, 2005

Reviewed the Statewide Manufacturing Curriculum for the Technical High Schools in Connecticut.

Recommendations from the Community College faculty were made to strengthen the content in the new manufacturing curriculum at the Technical High Schools.

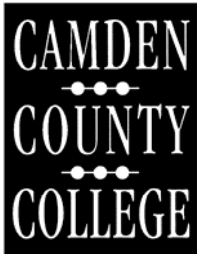
ASEE Middle Atlantic Section Section Meeting:

Mid-Atlantic Section 2006 Spring Conference April 28, 2006 - April 29, 2006

New York City College of Technology/ CUNY

300 Jay Street, Brooklyn, NY 11201

ITEM -1



Our community college participates in National Engineer's Week by promoting a Trebuchet competition among the area high schools and middle schools. Up until last year we had a bridge building competition. We get great response among the high schools that have a technology program or strong emphasis on science.

Attached please find information about the competition.

Regards,

Larry Chatman

Coordinator, Engineering Programs

Camden County College

There will be first, second, and third place prizes for the highest three total scores. We are also contemplating a separate prize for the best design; the design that we consider to be the most clever, neatest, interesting, and creative all rolled up into one. So, a team could potentially win two prizes!

Competition Registration and Contacts

To register your high school please contact:

Karen Gasparro at Camden County College: 856-227-7200, ext. 4388 **and** mail or fax (856-374-4885) entry forms with pertinent information completed. (You will receive further notice concerning the date of the competition, and registration forms will be sent out at a later date.)

Registration deadline is December 23, 2005

Technical Questions? Call:

- Professor Melvin Roberts at ext. 4526 or e-mail: mroberts@camdencc.edu
- Professor Lawrence Chatman at ext. 4526 or e-mail: lchatman@camdencc.edu
- Kevin Schmidt at ext. 4517 or e-mail: kschmidt@camdencc.edu

ASEE Illinois-Indiana Section

Section Meeting:

Illinois-Indiana Section Meeting March 31, 2006 - April 1, 2006
Indiana University Purdue University, Fort Wayne
Fort Wayne, Indiana

ITEM –1

Per your request, attached is an article written for an internal publication at Rolls-Royce which describes the Master of Science Degree in Technology Program we launched there in August 2005.

This program was spawned after some discussions with Dr. David Quick and others at Rolls-Royce following a presentation of our Weekend Master's Program at CIEC in Savannah last February. We plan to give an update at CIEC in San Antonio.

Please let me know if you have any questions.

Regards,
Mark

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College of Technology

Masters of Science in Technology Degree

Rolls-Royce and Purdue University have partnered together to offer a unique customized Masters in Technology Degree program.

26 students commenced this 'pilot' program in August 2005. The group is organized as a 'cohort' group, meaning students start and progress through a set curriculum together. Students learn from each other both from classroom academic theory and shared knowledge of Rolls-Royce practices and experiences.

The Masters program was launched to meet Rolls-Royce business needs and fulfill university standards. Key program objectives include:

- Advancement of analytical and problem-solving skills in applications of technology
- Enhancement of participants' learning skills in a continuously changing technology field
- Accentuation of professional ethics and awareness in global, multicultural and technological environments

The program consists of 5 continuous semesters, which span 21 months. The program includes a Rolls-Royce directed project instead of the typical dissertation/thesis. The directed project must be jointly chosen by student and supervisor and must anticipate solving a Rolls-Royce problem. This could be based on a technical, business or operational problem and will recommend or demonstrate an optimal solution. Student's knowledge gained from the curriculum and the directed project equips students with a relevant education that can be applied directly to work situations.

The program is delivered by full-time professors from Purdue University's main campus (West Lafayette) and conveniently delivered in a classroom setting at the UAW/Rolls-Royce Training Facility.

Future cohort offerings of this program will be assessed from the feedback and success of this pilot program at selected intervals.

Rolls-Royce is very excited to bring a technical masters degree to the business, jointly sponsored by Learning and Development and Engineering. This program allows employees to grow in academic challenges that can be directly applied to work situations and suggest/apply solutions that are valued by the company.

ASEE Mid-West Section

Section Meeting:

No Posting at this time

No Report at this time

ASEE North Mid-West Section

Section Meeting:

North Midwest Section October 6, 2006 - October 7, 2006
University of Wisconsin , Stout, Menomonie, Wisconsin

No report posted

ASEE Gulf Southwest Section

Section Meeting:

Gulf Southwest Section Conference March 15, 2006 - March 17, 2006
Theme: Engineering Education in the 21st Century: Pipeline and Workforce
Location: Baton Rouge, Louisiana

No report posted

ASEE Southeastern Section

Section Meeting:

Southeastern Section April 2, 2006 - April 4, 2006
The University of Alabama
Tuscaloosa, Alabama

ITEM –1

We have been using Georgia Boosting Engineering, Science, & Technology (BEST) Robotics competition as a way to reach out to middle and high school students across Georgia. Georgia BEST Robotics is hosted at Southern Polytechnic State University (SPSU) and is part of the national BEST Robotics program.

After seeing the great interest of high school students in “Robot Wars”, we decided leveraged off this to help motivate more interest in engineering careers. The goal was to have a “low cost” competition for the students’ yet also be significant enough to foster interest in engineering. Witnessing previous competitions in Texas and Alabama, I was motivated to start a BEST robotics hub for Georgia. Since inception in 2003, we have obtained corporate sponsorship from Siemens Energy & Automation, Higginbotham & Associates, SPSU, and others to fund the program. Numerous volunteers from SPSU and industry donate many hours to organize and run the events. Southern Polytechnic has been the host venue for the 2003, 2004, & 2005 state of Georgia robotic competitions. Each year, up to 24 high school teams from across the state compete; drawing about 1,500 students, parents, and supporters to the event.

Each competing team receives a \$600+ kit that is returned at the competition completion and also receives a \$300+ kit that is consumed and not returned. Thus, close to \$1,000 of material is needed for each team for robot building parts. It is important to BEST that there is not a registration fee, keeping each team’s competitive chances alive regardless of monetary resources. Since there is no entry fee and the teams are not billed for any material costs, the competitors are only constrained by time, imagination, and the components provided.

The BEST competition motivates students by challenging them to build a remotely controlled robot that accomplishes a defined task within a competitive setting. A professional engineer and a school coach guide student teams through the engineering process. Using only the materials provided, students have six weeks to design, develop, and test a robot that can outperform their competitors. During this time, the students experience the same problems, challenges, and breakthroughs that an engineering team encounters when it takes a product to market. In both cases, there are team dynamics, time constraints, material constraints, and pressure from other teams who are trying to solve the same problem. Placed in a real situation, with real problems, the students provide real (and surprisingly ingenious) solutions.

The weeks of hard work culminate in a thrilling daylong competition where one team achieves "BEST" performance. The inspiring event combines the excitement of a high school football game with the strategy of a chess match and the intellectual challenge of a science fair.

The heart of BEST is the experience of solving a seemingly overwhelming task using simple engineering methods and old-fashioned teamwork. Thanks to this experience, students who participate in BEST are better prepared to meet the challenges of the Technology Age.

Attributes of Competition

- Enhances teaching/teacher effectiveness
- Reinforces classroom learning
- Creates real-world academic challenge
- Increases students' interest in science
- Exposes students to new career opportunities
- Provides competition/fun
- Bolsters school spirit
- Builds "community"
- Establishes collaborative partnerships with business/industry

Goals of Competition

- Increase student interest in and pursuit of engineering, science, and technology careers
- Engage students in exciting, fun science-based activity
- Enlist business/industry to become partners in education
- Win The BEST Award

Benefits to Students

- Increases understanding of technical concepts and scientific principles
- Provides real-world engineering challenge

- Encourages abstract thought, self-directed learning, and decision-making
- Provides team building experiences
- Promotes good sportsmanship and ethical conduct
- Instills pride in success

Summary of BEST Robotics Competition:

- No entry fee
- All robotic parts are provided free of charge
- 6 week span from kickoff to competition (Fall Semester)
- Kickoff Day – Students provided parts and are introduced to the competition arena
- Mall Day – 5th week, students practice on the arena at a local mall
- Competition Day – all day fun and excitement
- The South’s BEST regional competitions are held at Auburn University

The SPSU MET department had 120 new incoming freshmen last year and about 200 new incoming freshmen this year (approximately 600 total MET students). We have been one of the fastest growing departments on campus for the last several years. While I cannot say that Georgia BEST Robotics is directly responsible for this growth, I know the visibility of bringing all the students, parents, and teachers on campus several times per year is a definite help. We have had many great testimonials from students, parents, and teachers as well.

And now for my sermon; why should we increase our focus on outreach? The National Science Board (NSB) publishes Science and Engineering Indicators (*Indicators*) for the U.S. every two years. The NSB observed alarming trends in the data published in *Indicators* 2004 and published a companion report [1]. Quoting the observations in the report: **“we have observed a troubling decline in the number of U.S. citizens who are training to become scientists and engineers, whereas the number of jobs requiring science and engineering (S&E) training continues to grow.”** The report editors were compelled to issue a warning: **“These trends threaten the economic welfare and security of our country.”** A previously published report NSB 03-69, 2003 has similar conclusions. The NSB report estimates the number of U.S. jobs requiring S&E skills is growing about 5% per year compared to a 1% growth for the rest of the labor force. Concern is also expressed over foreign competition. The NSB states that other countries have made increased S&E education investments at higher rates than the U.S.

We have several Georgia high schools with robotics clubs having 60 to 100 members. But these are the exceptions. Our culture places more emphasis on supporting athletics extracurricular activities. Unlike a sports coach, the robotics coach often is working after school on their own time and without the benefit of a booster club. As a group, we need to bring more visibility to the need for support of academic coaches and their programs. Support is needed from the State Department of Education, County School Board, School Administration, and the parents. When you see a model program like Wheeler High School or Kennesaw Mountain High School, you realize what is possible with the right support. Unfortunately, these schools are the exception to the rule.

Please let me know if you have any questions.

Glenn Allen, Director
Georgia BEST Robotics

www.georgiabest.org

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[1].National Science Board, “An Emerging and Critical Problem of the Science and Engineering Labor Force”, A Companion to Science and Engineering Indicators 2004, NSB 04-07, January 2004.

ASEE North Central Section

Section Meeting:

March 31, 2006 - April 1, 2006

Indiana University Purdue University, Fort Wayne

Fort Wayne, Indiana

ITEM –1

National Resource Center for Materials Technology Education - MaterEd

MaterEd is working toward providing technology educators a comprehensive set of educational resources on materials that will assist in curriculum and course development. Sponsored by the NSF Advanced Technological Education program, MaterEd is managed by Edmonds Community College in Lynnwood, WA and is aided by an extensive consortium of colleges nationwide. Nearing completion is the development of an industry verified set of core competencies in materials technology that will guide project staff members in the collection and organizing of existing educational materials to be included in an electronic database and made available to educators via the Internet. For additional information or to nominate materials to be included in the database, contact the project director, Tom Stoebe, at stoebe@u.washington.edu.

Robert L. Mott, P.E.

Professor Emeritus of Engineering Technology, University of Dayton

Please reply to my home:

2757 Symphony Way Phone: 937-435-9822

Dayton, OH 45449

ASEE Midwest Section

Section Meeting:

No Section Meeting Posted

No Report Posted

Pacific Southwest Section

Section Meeting:

Pacific Southwest Section Conference April 20, 2006 - April 21, 2006

California State Polytechnic University, Pomona

ITEM –1

Community College of Southern Nevada will host the winter meeting of the National Center for Telecommunications Technologies on January 12 – 14, 2006 at its Cheyenne Campus in North Las Vegas. Highlight of the meeting will be presentations on Friday, January 13th on topics such as VoIP, SoIP, RFID, and GIS. Lieutenant Governor Lorraine Hunt will deliver the keynote address at noon. Presentations are open to all NCTT partners and representatives as well as all CCSN faculty.

Peg Pankowski, Ed.D.

Dean of Information Technology and Telecommunications

Community College of Southern Nevada

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ASEE Pacific Northwest Section

Section Meeting:

Section board meeting was Oct. 14, 2005 in Spokane

ITEM –1

Things have been pretty quiet, actually. Our section board meeting was Oct. 14 in Spokane, and, among the usual agenda items, we revised our Bylaws and have converted our newsletter to electronic format. Several new campus reps attended, and I am currently serving as chair. We conducted a SWOT and hope to create an action plan in the spring to help recruit new, active members for the board.

Our section annual meeting is scheduled for May 11-13, 2006, at OIT. We are excited about our keynote speaker, a member of the ASCE committee on section 465, which is quite controversial. We are hoping to do a "point-counterpoint" session.

ASEE Rocky Mountain Section

Section Meeting:

No Section Meeting Posted

ITEM –1

Weber State University will be hosting the 2006 ETLI on October 6-8, 2006. The meeting will be held at the Salt Lake City Marriott Downtown and will be co hosted by Salt Lake Community College, Utah Valley State College, and Brigham Young University. We plan on having sessions for both faculty and administrators as well as some joint session for both groups. More information should be forthcoming at the CIEC meeting.

Warren

Summary:

By the activities reported for this reporting period it can be seen that there were has been a moderate amount of activity going on in the sections across the country. There still are many who choose to not respond to this call for section activities. I would certainly like to see a substantial increase in response representation of our groups. I know that these listed sections in this report cannot be the only ones in ETD with activities going on.

I find it a real stretch of the imagination that there were “actually” no activities going on at any of the institutions within the non-reporting regions. I really doubt if they are not interested in their own promotion, but it seems that they are passing up a great opportunity to be heard nationally.

Respectfully submitted,

Jerome Tapper, Northeastern University, Boston, MA