

# THE CANAVERAL FLYER

A NEWSLETTER OF THE CANAVERAL SECTION OF ASMEI

VOLUME 42, ISSUE 6

FEBRUARY 2002

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Honors & Awards Chair Jim Phillips, PE
Industry Relations Keith S. Conaughty, PE 321-853-6434
Membership Development Korie Carter 321-777-9331
Member Interests Mark Greby, PE
Minorities & Women Stephanie Hopper
Newletter Editor Hugh Bain
Professional Development Scott E. Seigel
FSEC Representative Dave Chasar
FIT Student Chair Morgan Plamondon



## A Letter from the Chair



*As most of you know, February is Engineer's Month and volunteers are needed during Engineer's Week to speak to High School student about Engineering and Education. You are expected to volunteer, as an Engineer's work is service to the community.* I know "expected" is rather strong however we should all be aware of our obligation to the community. Several local companies have already made some of their Engineer's time available. Engineers at BRPH, Harris, NASA, and Siemens Westinghouse have already signed up however more is needed. I believe that your employers will allow your participation in this endeavor as it involves your time helping them and yourself look good. **Please contact Stephanie Hopper, Women and Minorities Chair** [stopper@xch-bsco-06.ksc.nasa.gov](mailto:stopper@xch-bsco-06.ksc.nasa.gov) **in order to sign up. You may speak to students at a High School of your choice in Brevard County.**

***Our February Board Meeting is the 12<sup>th</sup>, 6pm, at my home in Suntree to primarily discuss Engineer's Week festivities. All are invited to attend. We highly value your input and participation in these events, as will the students.***

At the Honor and Awards Dinner, we honored those who have been ASME Members for 25 or 50 years, among others. We had about 14 members who qualified this year with about 25 in attendance. **Region XI Vice President, K.R. Rao** and **Southern Regional Director, Burt Dicht**, were also in attendance. K.R. presented the awards with pictures taken for all. Look for them in a future issue or on our web site.

The CCTS Engineer's Banquet is our meeting February 22<sup>nd</sup>. At the time of this writing Senator Bill Nelson is the probable speaker. Also the J. Tal Webb Award is given. Two outstanding candidates have been nominated. Please call me if you wish to attend as there are only a few seats left at the ASME Tables. No cost, however ASME Engineer's Week Volunteers and Board Members are given preference.

***Our Customer Service Skill Course is February 26<sup>th</sup>*** so don't forget to sign up for this. I made an error in the last issue stating the price was \$195 versus the original price of \$395. A few people have taken advantage of this error already so I must offer this pricing to all members, though a year free membership will not be included with this course. ***CSSC Registration Deadline is February 19<sup>th</sup>. The Pressure Vessel Course starts March 5-7<sup>th</sup> with a registration deadline of February 28<sup>th</sup>. The Fracture Mechanics Course is April 2-4<sup>th</sup>. Course information and registration form are included in this newsletter.***

***Next month on March 16<sup>th</sup> is the Harbor Branch Tour sponsored by our Vero Retirees Group. We can't forget about the joint Senior/Student Section Meeting that shortly follows. Also the Space***

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CCTS ENGINEERS WEEK BANQUET - FEB 22ND  
ASME B31.1 / B31.3

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## Canaveral ASME Section 2001-2002 Officer Listing

### **Executive Committee Chair**

Scott E. Seigel  
*Scott.e.seigel@swpc.siemens.com*

### **Executive Committee Vice-Chair**

Hugh Bain  
*ehbain@rockwellcollins.com*

### **Treasurer**

Tim Ehlers  
*Debtimehlers@cs.com*

### **Secretary**

Will Judd  
*WEJudd@kscbna.ksc.nasa.gov*

### **Executive Committee Advisors**

Jack Wiles, P.E.  
*jwiles@webtv.net*

Tal Webb, P.E.  
*WEBBJ@ASME.ORG*

Bob Bosnak, P.E.  
*betaboz@aol.com*

Marv Yarosh, P.E.  
*yarosh@fsec.ucf.edu*

### **Industry Relations Chair**

Keith S. Conaughty, P.E.  
*keith.s.conaughty@lmco.com*

### **Newsletter Editor**

Hugh Bain

### **Honors and Awards Chair**

Jim Phillips  
*phillipj@xch-bsco-02.ksc.nasa.gov*

### **Membership Chair**

Korie Carter  
*since88@bellsouth.net*

### **Government Relations Chair**

Dale A. Shepherd, P.E.  
*dshepherd@h2energyinc.com*

### **Young Professional's Committee**

Dan Johnson, FL Institute of Technology  
*djohns08@harris.com*

Scott Mimbs, Cocoa High School  
*Scott.mimbs@swpc.siemens.com*

Nina Webb  
*WEBBJ@ASME.ORG*

### **Women and Minorities Committee**

Stephanie Hopper - Chair  
*STHopper@xch-bsco-06.ksc.nasa.gov*

Faye Tomimbang  
*faye.m.tomimbang@usago.ksc.nasa.gov*

### **Programming and Publicity Committee**

Hugh Bain - Chair

Diane Nguyen  
*diane.n.nguyen@lmco.com*

### **Professional Development Committee**

Scott E. Seigel - Chair

Nick Noparat  
*nnoparat@genphysics.com*

Steve Herridge, P.E.  
*stephen.m.herridge@usago.ksa.nasa.gov*

Marvis Sylvers  
*marvis.y.sylvers@lmco.com*

### **College Relations Chair**

Pierre Larochelle  
*pierrel@fit.edu*

### **FIT Student Section President**

Morgan Plamondon  
*mtmons@aol.com*

### **Member Interests Chair**

Mark Greby  
*mark.j.greby@usago.ksc.nasa.gov*

### **FSEC Representative**

Dave Chasar  
*dchasar@FSEC.UCF.EDU*

## **JANUARY SNAPSHOTS...**



NATIONAL ENGINEERS WEEK\* 2002  
FEBRUARY 17-23



**25/50 Year Award Winners: John MacNeill, PE (50), James Wilkins (50), John Aymonin, PE (50), Oscar Furguson (50), Brice Lytle, PE (25) & John MacMillin, PE (25). Also shown are K.R. Rao & Scott Seigel.**



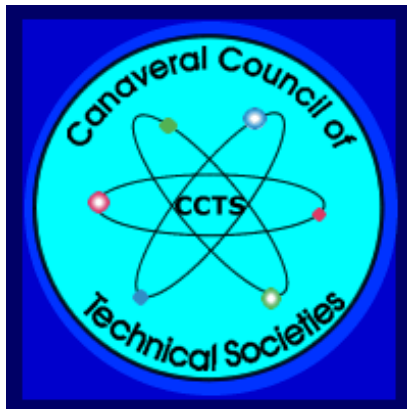
**Your Executive Board Members: Will Judd, Jim Phillips, Scott Seigel, Hugh Bain & Tim Ehlers. Also shown are K.R. Rao & Burt Dicht along with our newest Canaveral Section Member, Leanna Konowicz.**



**FEBRUARY'S MEETING:**  
***Engineers Week Banquet***



**Sponsored by:**  
**Canaveral Council of Technical Societies**



**WHEN:** Friday, February 22, 2002 at 6:00 PM

**WHERE:** Double Tree Cocoa Beach Oceanfront Hotel  
2080 North Atlantic Avenue  
Cocoa Beach, FL 32931

**GO TO [WWW.CANAVERALCTS.ORG](http://WWW.CANAVERALCTS.ORG) FOR MORE INFORMATION**

**-OR-**

**[HTTP://WWW.CANAVERALCTS.ORG/ENGINEERINVITE.HTM](http://WWW.CANAVERALCTS.ORG/ENGINEERINVITE.HTM)  
TO DOWNLOAD THE REGISTRATION FORM**

# 2002 OFFICER SELECTIONS

The future success of the Society depends on the effective utilization of the knowledge and abilities of its individual members. If the Society is to improve or refine its present programs, it is essential that the members continue to select new officers who are capable, dedicated individuals with exceptional leadership qualities.



NATIONAL ENGINEERS WEEK\* 2002  
FEBRUARY 17-23

The 2002 Nominating Committee, consisting of 38 voting members, urges that you submit your proposals now. As part of its selection process, the Committee will study each of the written proposals submitted on behalf of all proposed nominees for office and will interview the proposed nominees and their supporters.

The Nominating Committee will select 13 nominees for Vice Presidential positions for the 2003-2006 term. There will be five Regional Vice President positions (I, VII, IX, XI and XIII); three Engineering Vice President positions (Engineering & Technology Management, Environment & Transportation, and Int'l Gas Turbine Institute); two Codes and Standards Vice President positions (Conformity Assessment, and Safety Codes & Standards); and three other Vice President positions (Engineering Education, Government Relations and Member Interests & Development).

The Nominating Committee will select three nominees for the member-at-large positions on the Board of Governors for the 2003-2006 term, and a nominee for President for the 2003-2004 term.

If, as a member of ASME, you are interested in submitting a proposal for any one of the above elective offices, please contact Rita M. Patterson, Secretary, 2002 Nominating Committee, at 409-772-9071, [rita.patterson@utmb.edu](mailto:rita.patterson@utmb.edu). The nomination package is available on ASME's web site <http://www.asme.org/honors> or copies may be obtained from Gilda A. DiTullio at ASME Headquarters at 212-591-7736, [ditulliog@asme.org](mailto:ditulliog@asme.org). The deadline for submitting completed proposal forms is April 15, 2002.

The Nominating Committee will be meeting during the Summer Annual Meeting in Minneapolis, Minnesota, June 9-12, to nominate individuals for ASME Society office. The names of the nominees will be on the officer election proxy that will be circulated to the membership in September 2002.

## **A WORD FROM DON SHAFFER ON ASME B31.1 / B31.3**

The ASME B31 codes for pressure piping are concerned with piping design, materials, fabrication, and inspection practices. There are many different parts of the B31 piping codes. ASME B31.1 is concerned with Power Piping such as used in power plants, while B31.3 deals with Process Piping such as used in Chemical plants or Refineries. Although the ASME B31.1 and B31.3 codes are thought to be companion codes, B31.3 is considered to be better developed than the B31.1 code since historically there has been more activity in the Process and Refinery fields working on the B31.3 committee.

Each year the ASME B31 working committees have several meetings for discussion and to work on various code activities. Meetings are usually scheduled; one in the east part of the country and another in the west. So far this year, the ASME B31.1 meetings are scheduled to take place on Jan 28-30 in Tucson, Arizona and on June 03-05 in St. Pete Beach, Florida. The first ASME B31.3 committee meeting is scheduled for April 22-24 in Colorado Springs, Colorado. There may also be other pressure vessel and piping conference meetings or joint B31.1/B31.3 committee meetings held during the year, as yet unannounced.

The individual committee meetings usually follow a three day format; the first day spent networking and members making technical presentations. The main committee work is usually done on days two and three. Usually day two is spent in individual working task meetings. The third day is where the group meeting is held and overall work is discussed.

A review of the states that have B31.3 committee members lists; Texas, Illinois, North Carolina, South Carolina, Ohio, Indiana, New Jersey, Delaware, Oklahoma, Alaska, Missouri, California, Massachusetts, New York, Pennsylvania, Rhode Island, Kansas, and Alberta. None are in Region XI. A similar list for B31.1 was not available at the time this article was being written.

Committee members serve on a voluntary basis. The B31.1/B31.3 members work on assigned tasks in the task meetings. Volunteers are usually assigned work based on their level of expertise and experience they bring to the committee. As a benefit, volunteers also get a voice into the makeup of future code revisions and committee tasks. The committee members have a considerable experience base available, with literally hundreds of years of combined piping experience. The ability to focus this experience upon solving a specific member problem is another definite benefit that the committee members share.

Our Region XI Section is interested in determining the level of interest in B31.1 and B31.3 code committee meetings. The Canaveral Section would like to hear about your B31.1 and B31.3 issues, or comments regarding ASME B31.1/B31.3 piping involvement.

Don Shaffer



NATIONAL ENGINEERS WEEK® 2002  
FEBRUARY 17-23

**Canaveral Section ASME  
2002 Course Enrollment Form  
FAX to Scott Seigel @ 1-407-736-5046**

**Feb. 26, 2002**

**Practical Customer Skills in Project Management**

In this highly interactive course, learn how to effectively communicate with internal staff, supervisors, and clients to determine realistic project goals and how to achieve them. You will also learn how to position yourself as a valued partner and a valuable resource in problem solving. This course offers a hands-on approach utilizing practical skills you'll use on daily business situations. You will leave the day prepared to become a problem-solver and ready to foster valued partnerships with your customers. **Cost: \$195**

**March 5-7, 2002**

**FAILURE, FAILURE PREVENTION AND REPAIR OF PRESSURE VESSELS, PIPING, BOILERS AND ROTATING MACHINERY:  
With Life-Extension Considerations**

Purchasing, fabricating, maintaining and repairing equipment at the lowest possible cost while assuring non-failure is always a priority. You will examine case studies detailing companies who have saved millions of dollars by successful repair welding of pressure vessels, turbines, boilers, piping, gears and other parts as a result of carefully planned and supervised procedures. Then you will make comparisons with similar situations in other plants where lack of available experience and expertise resulted in unnecessary dismantling and/or replacement of the same parts or components. Take this seminar and learn how to:

- Detect types and causes of failures
- Properly interpret nondestructive test results
- Make the right decision on equipment life-extension
- Analyze financial considerations before you repair/replace

**Cost: \$1295**

**April 2-4, 2002 (Reschedule from Nov 2001)**

**FRACTURE MECHANICS APPROACH TO LIFE PREDICTION**

This course will provide you with a practical understanding of fatigue and fracture calculations. It is pertinent to engineers who are required to perform such calculations, or who specify or evaluate testing and draft fatigue or fracture portions of design requirements. You are exposed to state-of-the-art methodologies such as the API 579 procedure and the British Standards PD 6493 approach. Related subjects such as damage tolerance analysis, reliability, and risk-based inspection will be discussed briefly. **Cost: \$1295**

Name \_\_\_\_\_

Phone \_\_\_\_\_

Company \_\_\_\_\_

Visa / MC Credit Card # \_\_\_\_\_

Street Address \_\_\_\_\_

\_\_\_\_\_

City / State / Zip \_\_\_\_\_

Expiration Date \_\_\_\_\_

## **Practical Customer Skills in Project Management**

A professional Development Course offered by  
The Canaveral Section of ASME to all interested Technical Professionals  
**Tel: 321-255-1965      FAX: 407-736-5046**

### **WHAT YOU WILL LEARN**

In this highly interactive course, learn how to effectively communicate with internal staff, supervisors, and clients to determine realistic project goals and how to achieve them. You will also learn how to position yourself as a valued partner and a valuable resource in problem solving. This course offers a hands-on approach utilizing practical skills you'll use on daily business situations. You will leave the day prepared to become a problem-solver and ready to foster valued partnerships with your customers.

This course is suitable for engineers, supervisors, and project managers of all levels. In particular, younger engineers will find the content extremely helpful as they advance their careers.

Communication and problem-solving strategies are important for engineers to learn in order to work effectively with others and complete projects successfully and on schedule.

### **BY THE END OF THE DAY YOU WILL KNOW HOW TO:**

- Communicate effectively with the right mix of listening, asking and informing
- Practice the process for planning successful interaction with others
- Develop interaction strategies to accomplish your goals
- Practice 10 kinds of influencing tactics
- Recognize common communication roadblocks and navigate around them
- Format written communication that effectively carries messages
- Write realistic strategies, with a group activity to put the process into action
- Build your credibility and others' trust
- Help others choose your ideas and like it – by focusing on their key issues and your project's benefits
- Become a valued problem-solving partner
- Create selling messages and visuals

### **SPECIAL FEATURES**

Course participants will discuss frequent communication roadblocks and ways to navigate around them. You will have many opportunities for hands-on practice in small teams of the skills featured during the day. The course is very interactive and questions are encouraged.

### **THE DAY'S AGENDA**

Program introduction and overview of strategic people skills

- The bigger picture of project management
- Preparing to succeed

#### **Brainstorming the problems**

- Soliciting audience perception of the roadblocks and hurdles to successful interaction with project management customers
- Using the brainstormed list to identify what you'll address in this workshop

#### **Planning interactions with customers**

- Developing interaction strategies
- Interacting: how we create a dialogue, position ourselves as a valued problem-solving partner, use a variety of tactics in influencing others, sell our ideas
- Updating strategies based on the dialog

### **ABOUT THE INSTRUCTOR**

**Brigham Thomas** is a Certified Instructor through Lore International Institute. With over 15 years experience in successful project management and business development, she also brings many real-life illustrations of customer interactions into the course. Brigham works at Lockheed Martin Energy Systems, where she is a Program Manager responsible for technology development for law enforcement, safeguards, and security applications.

## Practical Customer Skills in Project Management

A professional Development Course offered by  
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Tel: 321-255-1965      FAX: 407-736-5046

Brigham's broad working experience includes both the technical and the business aspect of project management, and covers a variety of areas: aerospace, automotive, energy efficiency, manufacturing, materials, technology transfer, economic competitiveness, proposal writing, proposal review, and funding selection. An active member of ASME, Brigham currently serves on the Board on Government Relations as the appointed Council on Engineering representative. She is also the past chair of the ASME Management Division.

### **Activity: Writing realistic strategies**

- Defining a Customer Skills Strategy
- Determining objectives: What needs to change? or What needs to be accomplished?
- Planning action steps: doable actions that will achieve the objective
- Writing the strategy

### **Positioning yourself as a valued problem-solving partner**

- The Lore Communication Model for conducting dialogue
- Building trust
- Building credibility
- Balancing the elements of the model

### **Determining needs – the facilitative questioning process**

- Describing the Facilitative Questioning Process
- The questions
- Practicing the questions for a scenario

### **Writing interaction strategies for influencing**

- The Influence model
- Ten influence tactics
- Identifying another person's influencing tactics
- Optimizing your ability to influence

### **Best practices for communicating your ideas**

Helping others choose your idea – and like it!

- Identifying their key issues and focusing on them
- Addressing their key issues and linking these issues to the benefits that will be received

*Activity: Building the elements of selling messages*

*Activity: Writing selling messages & theme statements*

### **“Best practices” in selling your ideas**

- Communicating with multiple audiences
- Formatting our written communication
- Why visuals are our most powerful communication device

**Course Date:** February 26, 2002

**Location:** Cocoa Beach Hilton

**Course Price:** \$195

Name \_\_\_\_\_

Company \_\_\_\_\_

Street Address \_\_\_\_\_

City / State / Zip \_\_\_\_\_

Phone \_\_\_\_\_

Visa / MC Credit Card # / Expiration Date \_\_\_\_\_

## **FAILURE, FAILURE PREVENTION AND REPAIR OF PRESSURE VESSELS, PIPING, BOILERS AND ROTATING MACHINERY: With Life-Extension Considerations**

Purchasing, fabricating, maintaining and repairing equipment at the lowest possible cost while assuring non-failure is always a priority. You will examine case studies detailing companies who have saved millions of dollars by successful repair welding of pressure vessels, turbines, boilers, piping, gears and other parts as a result of carefully planned and supervised procedures. Then you will make comparisons with similar situations in other plants where lack of available experience and expertise resulted in unnecessary dismantling and/or replacement of the same parts or components. Take this seminar and learn how to:

- Detect types and causes of failures
- Properly interpret nondestructive test results
- Make the right decision on equipment life-extension
- Analyze financial considerations before you repair/replace

### **WHO SHOULD ATTEND**

Users, manufacturers, repair organization and inspection agency representatives involved in repair of alterations of pressure vessels, boilers, piping, tanks, compressors, turbines, heat exchangers, digesters, valves and gears

### **SPECIAL FEATURES**

- Receive the textbook *Defects & Failures in Pressure Vessels and Piping* by Helmut Thielsch.

### **COURSE HIGHLIGHTS**

- Detecting types and causes of failures
  - Learn the inspection requirements as mandated by ASME and ANSI codes
  - Discover how to locate hidden defects, residual stress, metal straining, embrittlement due to hydrogen, graphitization and sensitization
  - Examine types of cracks, tears and other defects in welds, castings, forgings, and other base materials with respect to the conditions which cause or do not cause progressive or sudden failures
  - Discuss operational failures in pressure vessels, piping, tanks, compressors, turbines, heat exchangers, digesters, valves and gears including fabrication and welding defects, cracks and microfissures.
  - Learn to detect flaw propagation, creep deformation, fatigue, shock loading, stress corrosion, erosion and thermal cycling, base metal defects, laminations, and forging tears
- Nondestructive testing, inspections and test interpretations
  - Learn how to carefully select and utilize effective nondestructive testing procedures and inspection techniques
  - Understand the proper use of interpretation of various nondestructive tests using illustrations of stable, weakened and failed materials, and the benefits, when applicable, of periodic inspections
  - Identify conditions leading to failures which are not detected by common nondestructive tests
- Plant integrity and life-extension analyses
  - Learn details of boiler, piping and turbine performance analyses, involving operating periods of 40 to 60 years
  - Identify major potential failure locations in view of successful repair experience, and system upgrading and life-extension considerations
- Code alteration and repair procedures
  - Review design aspects, and detailed repair procedures such as welding, bolting, metal locking and heat treatment
  - Identify improper repair consequences that will be illustrated using examples of minor leaks which have subsequently resulted in progressive and/or catastrophic failures
  - Determine the adequacy of repairs to provide temporary or permanent solutions
  - Understand product liability and insurance coverage considerations

### **ABOUT THE INSTRUCTOR**

Helmut Thielsch, P.E., is President of Thielsch Engineering Associates, Inc. He was formerly vice president, Research, Development and Engineering at ITT Grinnell Corporation. He has been extensively involved in performing failure analysis and repairs of piping and pressure vessels, boilers, components, compressors, turbines, valves, pumps, fittings, gears, structures, deaerators and other metal products. Mr. Thielsch has served as a consultant to major utilities; petrochemical plants; pulp and paper mills; industrial plants; manufacturing companies; and insurance underwriters. He is a Fellow Member of the ASME, ASM and ASNT. Mr. Thielsch is author of the book *Defect's and Failures in Pressure Vessels and Piping*, and has written chapters for handbooks by ASME, ASM, and AWS, and the *Piping Handbook*.

**3 days / 2.1 CEUs/21 PDHs**

**Cost: \$1,295**

**Date: March 5-7, 2002 Cost: \$1295**

**Location: Cocoa Beach Hilton**

### **TO REGISTER:**

Contact your ASME Executive Chair Scott Seigel at:  
scott.e.seigel@swpc.siemens.com  
-or- 321-255-1965

# FRACTURE MECHANICS APPROACH TO LIFE PREDICTION

## WHAT YOU WILL LEARN

This course will provide you with a practical understanding of fatigue and fracture calculations. It is pertinent to engineers who are required to perform such calculations, or who specify or evaluate testing and draft fatigue or fracture portions of design requirements. You are exposed to state-of-the-art methodologies such as the API 579 procedure and the British Standards PD 6493 approach. Related subjects such as damage tolerance analysis, reliability, and risk-based inspection will be discussed briefly.

## BENEFITS

- Become familiar with the underlying assumptions and limitations of fracture mechanics.
- Gain a better understanding of material selection for fatigue and fracture resistance.
- Learn how to perform simple to moderately complex fracture mechanics calculations.
- Learn about codified procedures for flaw evaluation.

## WHO SHOULD ATTEND

Engineers who work with mechanical design, mechanics and structures as well as those involved in testing and equipment fabrication.

## SPECIAL FEATURE

- Receive the textbook *Fracture Mechanics: Fundamentals and Applications*, by T.L. Anderson

## COURSE HIGHLIGHTS

Linear elastic fracture mechanics

- Energy release rate parameter
- Stress intensity factor
- Examples of K solutions for structures and test specimens
- KIC testing

Fatigue initiation

- Mechanisms of crack nucleation
- Strain life curves

Fatigue crack growth

- Paris equation
- Life prediction
- Crack closure
- R ratio effects

Environmental cracking and corrosion fatigue

- Stress corrosion cracking
- Hydrogen embrittlement/hydrogen assisted crack growth
- Corrosion fatigue

Elastic-plastic fracture mechanics

- Crack tip opening displacement (CTOD)
- J integral
- ASTM Standards

Variable amplitude loading

- Fatigue retardation
- Life prediction models
- Cycle counting

Fracture control

- Leak before break criterion
- Failure assessment diagrams
- British Standards PD 6493 Method
- API 579 Method

Fatigue design

- Geometry considerations
- Material selection
- Damage tolerance analysis
- Defining inspection intervals

Probabilistic fatigue and fracture analysis

- Effect of uncertainty on input data
- Probability of detection curves
- Risked-based inspection

Fractography and failure analysis

- Ductile fracture (microvoid coalescence)
- Brittle fracture (cleavage)
- Ductile-brittle transition
- Fractography of fatigue failures

Fatigue behavior of various materials

- Steels, Aluminum alloys, Titanium alloys
- Polymers, Composites, Ceramics

**Date: April 2-4 Cost: \$1295**

**Location: Cocoa Beach Hilton**

**Contact your ASME Executive Chairman Scott Seigel at [scott.e.seigel@swpc.siemens.com](mailto:scott.e.seigel@swpc.siemens.com) or 321-255-1965 to Register.**

## HOTEL INFORMATION:

**Cocoa Beach Hilton**

Hotel Rate \$89 Contact Scott Seigel prior to making hotel reservations

## Some Words from our Women & Minorities Chair...

### ◆ Volunteers Needed to Support National Engineering Week

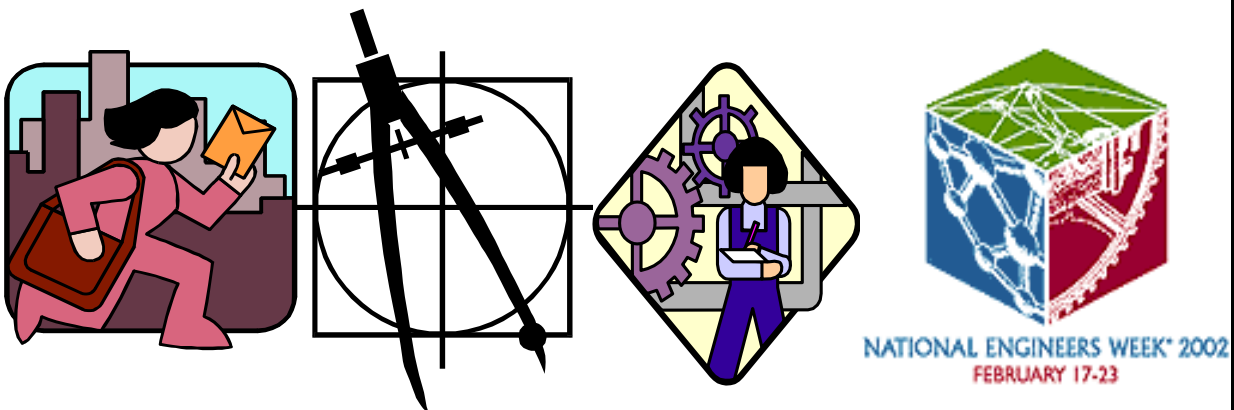
Engineers turn ideas into reality. Feb 17th - 23rd is National Engineers Week. The Cape Canaveral Section of ASME would like to celebrate this week by getting a new generation interested in engineering. We can't do this without your help. We need volunteers to go into local high schools and talk to groups of students during their science class period. It will take a day of your time. A video tape and activity material will be provided to you.

If you are interested, call Stephanie Hopper at 321-255-9814 or E-Mail [wildcateng@yahoo.com](mailto:wildcateng@yahoo.com).

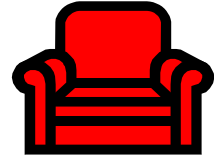
### ◆ Introduce a Girl to Engineering Day

Thursday, February 21st has been designated as "Introduce a Girl to Engineering Day" to coincide with the observance of National Engineers Week 2002. Initiated in 2001, "Introduce a Girl to Engineering Day" is designed to publicize the need to recruit more women into engineering education and careers, as well as reach out to K-12 girls with positive messages about math and science education and engineering careers. The goal of the day's activities is to mobilize at least 10,000 women engineers reaching out to at least 1 million girls.

The Board on Minorities and Women is working with ASME's Board on Public Information to promote awareness of and participation in this upcoming event. We encourage you to participate in "Introduce a Girl to Engineering Day". Detailed information on the February 21st event, including a booklet containing information on working with girls and statistics on women in the engineering profession, is available at <http://www.eweek.org>. Click on "Introduce a Girl to Engineering Day".



# SOME FINAL WORDS FROM OUR CHAIR...



## Canaveral Section Board Meeting February 12<sup>th</sup>

Your Canaveral Section Board will be having their second meeting of the year at the Suntree residence of the Executive Committee Chairman, Scott Seigel, February 12<sup>th</sup> 6pm. **All Section Members are invited to attend. Board Member's attendance is highly suggested.** RSVP call 255-1965 or e-mail [scott.seigel@siemens.com](mailto:scott.seigel@siemens.com) for directions.

## Canaveral Section Newsletter will be mailed electronically

As postage rates continue to increase along with the "Canaveral Flyer" starting to look like a newspaper, the Canaveral Section Board is moving towards strictly e-mailing the newsletter to all in a word format. Reviewing the section roster indicates that 80% of members have e-mail addresses so please keep your email address updated with your section and ASME, NY (800-THE-ASME). Implementation will be in a few short months. Those without e-mail addresses will still be snail-mailed. If you wish to receive a hard copy of the newsletter please call or write [Scott.Seigel@siemens.com](mailto:Scott.Seigel@siemens.com)

## Nominate yourself and a friend to join our Executive Committee. It's just an election away...

The Election of Officer's for next fiscal year (starts July 2002) will soon be at your mail bin and we are seeking nominees for the following positions...

Executive Committee Chairman  
Executive Committee Vice-Chair  
Treasurer  
Secretary  
Various Committee Members (volunteer positions)

We welcome all nominees and all volunteers. If you work with someone who is also an ASME member and you think that person would make a great Canaveral Section Officer please do not hesitate to nominate him or her. There is no need to ask their permission for if they are voted in to office by their peers, they have to serve for at least a year. This works well to nominate people you don't like also as it makes their life just a bit busier hopefully allowing them to leave you alone. If you think that was funny than **you are a great candidate for the Board** and I am looking forward to speaking with you soon. Call me at 255-1965 to nominate your friend, office PITA, or to volunteer. [scott.seigel@siemens.com](mailto:scott.seigel@siemens.com)

## ASME DUES REMINDER

Just a reminder that you will be dropped from the roles after this newsletter if you have not yet paid your dues. You can pay your dues by either calling 800-THE ASME (800-843-2763) or by accessing [www.asme.org](http://www.asme.org) . Only 77% of our membership have paid their dues so there is roughly a 1 in 5 chance that you have not paid yours. Please contact Korie Carter, Membership Chair, or call 800-843-2763 to ensure your continued involvement with "THE BEST PROFESSIONAL SOCIETY IN THE WORLD". Find out how to get your membership for free! It is very easy! All those who still haven't paid by February 1<sup>st</sup> shall receive a call from our Membership Committee to find out the reason. We do our best to foster a community relationship with our membership so let us know if you are pleased or not with your Canaveral Section. Join us at the Board Meeting February 12<sup>th</sup> in Suntree where dinner is free along with the advice!

# One Last Article....



NATIONAL ENGINEERS WEEK\* 2002  
FEBRUARY 17-23

## Strengthening Materials Bridging Industries

The construction industry, following the lead of the aerospace field, is taking notice of a carbon fiber material developed at the University of Kentucky. Apparently the material, which was developed by a civil engineer named Issam Harik, is just as effective at repairing bridges as it is at strengthening airplane hulls. A case in point is the decade-old Grayson Bridge in eastern Kentucky, which was judged by transportation officials to be in urgent need of repair due to weakening of its substandard beams. Rather than having to repair the super-structure in three to four years, officials decided instead to use Harik's carbon fiber material to "reinforce" the bridge. Glued in thin sheets to the bridge's girders and then laminated with an additional layer of epoxy, the material has extended the bridge's life by an estimated 50 years – and has done so at an estimated quarter of the traditional repairing method's cost. Most importantly, using the carbon fiber allowed the bridge to remain open during its repair.

Though the carbon fiber material has been slow to catch the interest of the construction industry, Jim Simpson, a bridge analyst for Kentucky's transportation officials, said expanding its use was not such a drastic leap. Explaining why, he singles out its practical aspects. "One of the big pluses of this fabric – it will take any form or shape that you want it to. It doesn't take any final form until it's laminated in epoxy." In addition to its versatility of form, the material boasts a remarkable strength. As an example of this, consider that the steel beams used to support bridges usually break under about 90,000 pounds of pressure per square inch. Yet a carbon fiber thinner than a human hair can withstand a weight up to 1 million pounds of pressure per square inch.

California, Florida and New York have begun using the newly developed material for bridge repairs and engineers in Japan are using it to make buildings more resistant to earthquakes. In addition, the material is being used to reinforce light poles and repair boats.

Source: Polyester Suits Just the Trick for Troubled Bridges

Roger Alford

The Bakersfield Californian, Dec. 23, 2001

<http://www.bakersfield.com/>

**HAPPY  
VALENTINE'S  
DAY!!!**





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