

The Award Winning Catalyst

Pittsburgh Section - American Institute of Chemical Engineers
www.lm.com/~aiche/



Volume 15 Issue 5

Feb 2001

FEBRUARY MEETING NOTICE

Event: *STUDENT NIGHT*

Where: The William Pitt Union
University of Pittsburgh

When: February 13, 2001

Time: 6:00 Reception and Poster Session
6:45 Dinner
7:30 Presentation
8:15 Student Awards
8:45 Adjourn

Cost: \$25.00

Chicken Françoise

Chicken Breast coated with bread crumbs and grated Romano cheese then sautéed

Orange Roughy Grand Marnier

Fillets of Orange Roughy topped with mandarin oranges and Grand Marnier sauce

Farfelle Pizzaiolio (Vegetarian Entree)

Farfelle pasta blended with peppers, mushrooms, onions, olive oil, garlic and fresh herbs

Dinner will include salad, fresh fruit, starch, vegetable, dessert, coffee and tea.

Evening's Topic:

In today's rapidly changing economy, the opportunities for engineers are endless. While there is still great competition for good people coming from the standard "old economy" companies, a new player has entered the field. The New Economy companies, or "dot-coms", are looking to engineers to play an important if non-traditional role as they test their business models in the global economy. As an engineer that has migrated from the traditional to the non-traditional, Bockman will discuss some of the opportunities as well as risks that exist in both worlds. He hopes to give some insight into how a company actually builds itself from an idea to a publicly traded entity. Bockman will take a few minutes to demonstrate FreeMarkets offering and discuss how engineers need to change their thinking from a design for manufacturing mentality to a design for purchasing mentality.

About the Speaker

Ed Bockman is a senior market maker and leader of the Electrical and Electronics Vertical at FreeMarkets. FreeMarkets runs on-line auctions in more than 29 different formats and provides support to both buyers and sellers in more than 30 languages to properly address the needs of both the buyer and the supplier for a given market. As such, Ed is responsible for the identification of potential savings opportunities for clients, the preparation of quotation packages, and the identification of high-quality suppliers,

RSVP NO LATER THAN FEBRUARY 7TH, 2001 TO:

Please Pay at Door

Mr. Michael Flaherty, Vice Chair
WSP Chemicals & Technology Inc.
Tel 724-266-7688 - Fax 724-266-7683 - michaelp871@hotmail.com

Name _____

Company _____

Telephone _____ Email _____

Entrée: _____

CANCELLATIONS: If you must cancel your meeting reservation, please do so no later than 24 hours prior to the meeting. If you do not provide a cancellation notice, you will be invoiced for the cost of your meal.

in conjunction with conducting online markets. Ed is also a primary liaison to many of FreeMarkets' Global 1000 clients, including several chemical and energy companies. Prior to joining FreeMarkets in 1998, he spent eight years holding various engineering, sales, and marketing positions at Calgon Carbon Corp. Ed holds a B.S. in chemical and biomedical engineering from Carnegie Mellon University.

Directions to The William Pitt Union

Please note that there is no parking in the driveway of the William Pitt Union. It is recommended that you park at the Soldiers and Sailors Memorial Hall which is located on Fifth Avenue across from the William Pitt Union.

From the East: Cars traveling from the east via the PA turnpike (I-70) should take Exit 6 to Route 370 West. From Route 376 take Exit 7A, Oakland onto Bates Street. Stay on Bates Street until it ends at Bouquet Street, turn left onto Bouquet Street, then right at the first light onto Forbes Avenue. Turn left at the first light onto Bigelow Boulevard towards Fifth Avenue. The William Pitt Union will be on your left.

From the West: Cars traveling from the West via the PA turnpike (I-76) should take Exit 3 to I-79 South. Exit from I-79 South to I-279 South. Exit I-279 South at Exit 14 to I-579 South. After crossing the Veterans Bridge on I-579, take the Forbes Avenue/Oakland Exit to the Boulevard of Allies. Follow Boulevard of the Allies to the second traffic light at Halket Street (Howard Johnson). Turn left onto Halket Street and follow to Forbes Avenue. Turn right onto Forbes Avenue and follow to Bigelow Boulevard. Turn left onto Bigelow Boulevard towards Fifth Avenue. The William Pitt Union will be on your left.

From the North: Take I-79 South to I-279 South. Exit I-279 South at Exit 14 to I-79 South. After crossing the Veterans Bridge on I-579, take the Forbes Avenue/Oakland Exit to the Boulevard of Allies. Follow Boulevard of the Allies to the second traffic light at Halket Street (Howard Johnson). Turn left onto Halket Street and follow to Forbes Avenue. Turn right onto Forbes Avenue and follow to Bigelow Boulevard. Turn left onto Bigelow Boulevard towards Fifth Avenue. The William Pitt Union will be on your left.

From the South: Take I-79 North to I-279 North and follow I-279 through Fort Pitt Tunnels. Exit to I-376 East (first exit off the bridge) and follow that towards Monroeville. Take the Forbes Ave/Oakland Exit. Follow Forbes Avenue to Bigelow Boulevard. Turn left onto Bigelow Boulevard towards Fifth Avenue. The William Pitt Union will be on your left.

LETTER FROM THE EDITOR

Dear Members,

Our joint meeting with AWMA was excellent! We had a record turnout. We would like to extend our gratitude to our guest speaker **Mr. Davitt Woodwell from the Riverlife Task Force**. His presentation was very informative as well as entertaining. Thank you for joining us Davitt.

This month we are having a joint meeting with the AIChE Student Chapters. Bright, young engineers from the University of Pittsburgh, Carnegie Mellon University, West Virginia University and Youngstown State University will be joining us. Your attendance at this meeting will tremendously benefit these young engineers. Several abstracts from posters that will be presented by students during the Student Night Poster Session are located in the *Hot News* column.

You can now be an AIChE Pittsburgh Chapter Monthly Meeting Sponsor too. With your sponsorship of \$200 you will be invited to display your company information at our meeting and will receive a ¼ page add (\$95 value) in the following Newsletter. We would appreciate your support! Please contact me for further information.

We encourage you to become active in our chapter by volunteering for the various events we support in our community such as Engineers' Week and the Science Fair. Please contact Nancy Hirko (412-433-5914) for the various volunteer positions available.

Peggy Panagopoulos
AIChE Newsletter Editor
ChemTech Consultants, Inc.

DEADLINE

The deadline for the March newsletter is **Thursday, February 15, 2001.**

Please contact:
Peggy Panagopoulos
ChemTech Consultants, Inc.
Telephone: 412-220-4612
Fax: 412-221-5685
email: pegpana@chemtech88.com

MCAFEE AWARD

The Pittsburgh Section of the American Institute of Chemical Engineers established the McAfee Award in 1982 to recognize a Chemical Engineer who has demonstrated outstanding qualities of professionalism. The award is named for Dr. Jerry McAfee, who exemplified such attributes during his career at the Gulf Oil Company. Appropriately, he was the first recipient in 1982. The award is a \$1,000 honorarium and an engraved plaque. It has been presented every two years to an outstanding Pittsburgh Chapter Chemical Engineer.

The award is made to a distinguished Chemical Engineer who ① is widely recognized for contributing to the profession, ② has community appreciation where she or he lives and works, and ③ has participated in and contributed to the American Institute of Chemical Engineers and the Pittsburgh Section.

The Honor Roll of McAfee Awardees include:

- 1982 Dr. Jerry McAfee, Chairman, Gulf Oil Corporation
- 1983 Dr. Daniel Bienstock, Deputy Associate Director, Project Management, DOE, PETC
- 1986 Dr. Herbert R. Toor, Professor of Chemical Engineering, Carnegie Mellon University
- 1988 Mr. Ezekail L. Clark, Consulting Engineer
- 1990 Dr. Arthur W. Westerberg, Professor of Chemical Engineering, Carnegie Mellon University
- 1991 Dr. Dale L. Keairns, Manager, Chemical and Process Development, Westinghouse Electric Corporation
- 1993 Mr. Walter Zabban, Senior Consultant, Chester Environmental
- 1995 Dr. John W. Tierney, Ph.D., Professor Emeritus, University of Pittsburgh
- 1997 Dr. Charles A. Bishop
- 1999 Dr. Shiao-Hung Chiang

The Pittsburgh Section is seeking to honor an outstanding Chemical Engineer in 2001. Accordingly, the awards committee is requesting that nominations of candidates, along with *vitae* supporting the award criteria, be submitted no later than **March 12, 2001** to:

Mr. Ed Moretti, AIChE Pittsburgh Chapter Chair
Baker Environmental
420 Rouser Road, Coraopolis, PA 15108

Telephone: 412-269-6055
Telefax: 412-269-6097
email: emoretti@mbakercorp.com

POSITION AVAILABLE

Harding ESE, Inc., a MACTEC Company

Harding ESE, Inc., a MACTEC Company, is a nationally recognized environmental/engineering consulting industry leader. Our Pittsburgh office currently has challenging opportunities for Chemical Engineers. These "seller/doer" leadership positions require 10+ year's experience in one or more of the following areas:

- Multi-media environmental compliance and auditing
- Air pollution control
- Environmental management systems/ISO 14001.

For consideration send resume and salary history/requirements to: **Human Resources Manager, Harding ESE, 700 North Bell Avenue, Suite 200, Carnegie, PA 15106. Fax: (412) 279-8567.** Visit our web site @: www.mactec.com.

CHAPTER ANNOUNCEMENT

"Introduce a Girl to Engineering Day" Set

As part of National Engineers Week, February 18-24, engineers from all over the country will have the opportunity to introduce the wonders of engineering to girls.

"Introduce a Girl to Engineering Day" is February 22 and AIChE members are encouraged to invite a girl to "work" with them that day. Demonstrating how an engineer works will go a long way toward interesting young women in engineering as a career.

For more information, visit the National Engineers Week Web site below.

<http://www.eweek.org>

AICHE SCHOLARSHIP APPLICATION

PITTSBURGH SECTION
American Institute of Chemical Engineers
Undergraduate Chemical Engineering Student
Scholarship Application

The Pittsburgh Section of the American Institute of Chemical Engineers (AIChE) plans to award one one-year \$500 undergraduate student scholarship for the 2001-2002 academic year. The recipient must be enrolled full time in the second or third year of an AIChE-accredited curriculum leading to an undergraduate degree in Chemical Engineering, must have completed at least the first year of said program and must satisfy one of the following conditions:

(a) Be enrolled at one of the four chemical engineering programs in the AIChE Pittsburgh Section area (Carnegie Mellon University, University of Pittsburgh, West Virginia University or Youngstown State University).

or (b) Be enrolled at any AIChE-accredited chemical engineering program in the United States provided that the student is the son or daughter of a member in good standing of both the AIChE and the Pittsburgh Section of AIChE.

The purpose of the Scholarship is to encourage excellence in the profession of Chemical Engineering by recognizing and rewarding those who demonstrate scholastic promise, initiative and dedication to the advancement of science and the Chemical Engineering profession by their achievements and accomplishments as undergraduate Chemical Engineering students.

DEADLINES

Applications will be available from the four University Chemical Engineering Departments noted above, and from the AIChE Pittsburgh Section Scholarship Selection Committee Chairman, Samuel W. Vance, 477 Bartolo Street, Pittsburgh, PA 15243 (Phone (412)-221-1067). Applications will be available January 15, 2001.

Completed Applications must be returned to the AIChE Pittsburgh Section Scholarship Selection Committee Chairman, Samuel W. Vance, 477 Bartolo Street, Pittsburgh, PA 15243, no later than March 15, 2001.

The successful candidate will be notified before April 15, 2001, by the Selection Committee Chairman.

All applications received before the deadline will be acknowledged by letter to the Applicant from the Selection Committee Chairman, within five days of receipt of the application.

APPLICATION INFORMATION

a. All of the entries shown on this Application Form must be completed.

b. A current transcript of the applicant's academic college record must be transmitted from the college or university directly to the Selection Committee Chairman.

c. Letters of recommendation (two professional (or academic) and two personal) shall be transmitted to the Selection Committee Chairman **WITH** the application, **OR DIRECTLY** to the Selection Committee Chairman, Samuel W. Vance, 477 Bartolo Street, Pittsburgh, PA 15243..

Very truly yours,
 Samuel W. Vance, Chairman
 Pittsburgh Section of AIChE Scholarship Award
 Committee

AWARD CRITERIA

The award shall be based on scholastic achievement, community activities, technical promise and ability, and demonstrated character. Financial need is not a criterion.

(Only if Applicant is a son or daughter of a Member of the Pittsburgh Section and the National AIChE):

Parent Name

Address

Phone _____

National AIChE Member No.

APPLICATION FORM

PERSONAL INFORMATION

Name of Applicant _____

Permanent Address: _____

No. & Street/P.O. Box _____

City _____ State _____ Zip _____

Telephone (include Area Code) _____

Local Address (if different from Permanent Address):

No. & Street/P.O. Box _____

City _____ State _____ Zip _____

Telephone (include Area Code) _____

I certify the answers given herein are true and complete to the best of my knowledge.

Signature

Date

ATTACH a typed 250-word (or more) statement of the reasons you wish to become a Chemical Engineer.

EDUCATIONAL INFORMATION

University/College in which you are currently enrolled:

Address _____

City _____ State _____ Zip _____

Date when degree is anticipated _____

ATTACH curriculum for the current and next school term.

REQUEST a current transcript of the applicant's academic college record be transmitted from the College or University directly to the Selection Co mmittee Chairman (Samuel W. Vance, 477 Bartolo Street, Pittsburgh, PA 15243).

APPLICATION FORM CONT.

REFERENCES

List two professional (or academic) and two personal references. Letters of recommendation should be attached to this form OR they may be sent directly to the Scholarship Selection Committee Chairman (Samuel W. Vance, 477 Bartolo Street, Pittsburgh, PA 15243). Do not use family members as references.

Professional (or Academic) (Give name, address, phone and length of time known)

1. Name Company/School Time Known

Address Telephone

2. Name Company/School Time Known

Address Telephone

Personal (Give name, address, phone and length of time known)

1. Name Company/School Time Known

Address Telephone

2. Name Company/School Time Known

Address Telephone

COMMUNITY ACTIVITIES

Three horizontal lines for listing community activities.

SUPPLEMENTAL INFORMATION

Other Information you wish to include:

Two horizontal lines for supplemental information.

(Attach Additional Sheets, if needed)

MEMBERSHIP

Membership Corner

LETTER FROM OUR MEMBERSHIP CHAIR

It's that time of year again! Time to renew your membership in both national AIChE and the local section. This is just a reminder to please pay your dues promptly. Not only do you get the many benefits that the national organization offers, but you also help support our local section and its various activities.

Members can also access the AIChE on-line member directory to review and correct their personal and professional data. Check it out at www.aiche.org. And don't forget to send corrections to me as well ~ nhirko@air-comp.com!

Please sign me up for the local Pittsburgh Section of AIChE

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

Business _____ Residence _____

Email _____

Annual Dues are \$16.00. Make check payable to "AIChE Pittsburgh Section" and send to our Treasurer John Hauser, PROSAF, Inc. 103 Yorktown Road, McMurray, PA 15317

HELP!!!!

Calling All Engineer's Week Volunteers!!!!

I need HELP!!!! It's that time again - February 16 and 17, 2001 is National Engineers Weekend at the Carnegie Science Center. The local section of AIChE will again be participating in this event. This will be our sixth year of involvement.

For those of you that have volunteered in the past - thanks and hope to see you there again! For all you novices, here's a fun way to get involved in your local section's activities. Help give chemical engineers and our local section a good name.

We intend to repeat our display and activities from last year. Hands-on activities will again include making "superballs" from a powder mixed with water and making models of chemical compounds using gumdrops and toothpicks. Both activities are really popular. We really could use and appreciate the help!!! I only have two volunteers so far.

We also have copies of the Periodic Table (supplied by Bayer Corporation) and other handouts describing chemical engineering. We need at least 45 people to staff the booth on Friday, February 16 and Saturday, February 17 from 9:00 A.M. to 5:00 P.M. both days. Each shift can be 2-4 hours, depending upon your availability.

A volunteer orientation meeting will take place at the Carnegie Science Center on Tuesday, February 6, 2001 from 5:00-6:30 p.m. in the Third Floor Overlook. Attendance is not mandatory for this session, but recommended for new volunteers.

If you are interested in participating in the Engineer's Week events or have ideas for new experiments, please contact me at nhirko@air-comp.com or call 412-826-3636.

Nancy Hirko

NOMINATIONS FOR 2001/2002 AIChE PITTSBURGH CHAPTER OFFICERS

Pittsburgh section members may now begin nominating candidates for the 2001/2002 season. Members may nominate themselves.

Please contact *Ted Andersen ChemTech (Phone 412-220-4555 or E-mail TSAndersen@aol.com)* to nominate yourself or another candidate. Nominations will be open until the deadline for the April newsletter (March 15, 2001). Ballots will be included in the April Newsletter and results will be announced at the May meeting.

Becoming an officer or participating on a committee is a great way to get more out of your AIChE membership. It provides a venue for exercising business skills such as leadership, organizing, communications, and networking as well as developing friendships with fellow members.

HOT NEWS

Development of an Exercise Model for Type I Diabetic Glucose Control

Philip J. Lenart

Advisor: Robert S. Parker

University of Pittsburgh

Type I diabetes is characterized by the need for exogenous insulin to regulate blood glucose concentration in the body. A noninvasive method of treatment would improve the patient quality of life and would entail the use of an implanted glucose sensor combined with a controller and pump to deliver insulin based on the blood glucose level. A model currently exists for a diabetic patient that takes into account the major organs responsible for glucose and insulin metabolism. This model, however, does not account for exercise, a major factor in diabetic glucose regulation. During exercise, there are changes in tissue behavior, blood flow, and glucose needs as compared to a resting individual. Understanding the regulation of glucose in an exercising diabetic person will provide needed information in the development of an automated insulin delivery device.

Daniel Collins

Diisopropyl Fluorophosphate in Biopolymer Monolith

University of Pittsburgh

Abstract from Undergraduate Independent Study:

In my independent study working along with Dr. Markus Erbelinger, now at Agentase, LLC, I had engaged in research for Dr. Alan Russell in the Chemical Engineering Department at the Biotech Center at the University of Pittsburgh. Continuing from Jacob Yount's studies, I studied the unknown behavior of the neurotoxin Diisopropyl fluorophosphate in a biopolymer monolith, finding the relationship of its concentration as it varied in vertical segments of the contaminated biopolymer. With the results those who handle the biopolymer monolith will know the degree in safety. Future studies will include the enzymatic degradation and compare the variations of DFP concentration in the biopolymer monolith for various concentrations of DFP and enzyme.

MINORITY SCHOLARSHIP

The Minority Affairs Committee of the American Institute of Chemical Engineers awards twenty \$1,000 scholarships each year to college undergraduates and incoming college freshmen who are studying, or plan to study (in the case of incoming freshmen) chemical engineering. Students must be members of a minority group that is underrepresented in Chemical Engineering

(i.e. African American, Hispanic, or Native American). We encourage you to invite all students who would benefit from this scholarship opportunity to apply. The deadline for application is **April 16, 2001**.

AIChE Minority Affairs Committee Scholarship Award for College Students is a scholarship award of \$1,000 conferred to an undergraduate in chemical engineering during the 2000-2001 academic year. The student must be a member of a minority group that is underrepresented in chemical engineering. Selection is based on the applicant's academic record, participation in AIChE student and professional activities, career objectives, and financial need.

<http://www.aiche.org/awards/awardddl.asp?AwardID=7>

AIChE Minority Affairs Committee Scholarship Award for Incoming College Freshmen is a scholarship award of \$1,000 conferred to a high school senior who is a member of a minority group that is underrepresented in chemical engineering. Applicants must plan to enroll during the 2001-2002 academic year in a four-year college or university offering a science/engineering degree.

Students are encouraged to choose classes leading to a degree in chemical engineering. Selection is based on the applicant's academic record, participation in school and work activities, reason for choosing science or engineering, and financial need.

<http://www.aiche.org/awards/awardddl.asp?AwardID=8>

If you have any questions about the awards, or would like a hard copy of application forms, please contact the AIChE Awards Administrator at awards@aiche.org <<mailto:awards@aiche.org>> or (212) 591-7478.

ENGINEERING HUMOR

SCENE: Public Executions by Guillotine

First condemned person steps up, a minister. Switch is pulled. Blade does not come down. Minister cries out: "God knows I am innocent!" He is pardoned.

Second condemned person is a revolutionary agitator. Switch is pulled. Blade does not come down. Guy cries out: "The revolution cannot be stopped!" He's pardoned.

Third condemned is an engineer. Switch is pulled. Blade does not come down. He looks up, points up, says, "I think your problem is that the cable is binding right here..."

**AICHE PITTSBURGH SECTION
2000-2001 SECTION OFFICERS**

Executive Committee**Chair**

Ed Moretti (emoretti@mbakercorp.com)
Baker Environmental
412-269-6055

Vice-Chair & Program

Michael Flaherty (michaelp871@hotmail.com)
WSP Chemicals & Technology Inc.
TEL 724-266-7688
FAX 724-266-7683

Secretary

Bill Hargest (hargest@ppg.com)
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Treasurer

John Hauser (prosaf@sgi.net)
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724-942-3717

Counselors

Carol Kessler (kesslerc@usfilter.com)
US Filter
412-269-5853

Larry Biegler (lb01@andrew.cmu.edu)
Carnegie Mellon University
412-268-2232

Past Chair & Nominations

Ted Andersen (TSAndersen@AOL.com)
ChemTech Consultants
412-220-4555

Additional Officers and Chairs**Membership & Engineer Week**

Nancy Hirko (nmhirko@air-comp.com)
Air/Compliance Consultants, Inc.
412-826-3636

Newsletter Editor

Peggy Panagopoulos (pegpana@hotmail.com)
ChemTech Consultants
412-220-4612

Development

Gerald LaRosa (Gerald.LaRose@Kvaerner.com)
Kvaerner Metals
412-918-3654

Committee Chairs

Safety & Environmental	Shiaw Tseng
Scholarship	Sam Vance
Student Night	Michael Flaherty

Web Master

Richard Dupree (rrd@telerama.com)
724-775-5122

PLACING AN ADVERTISEMENT

Interested in placing an ad in future newsletters?
Help sponsor the AIChE by placing an ad.

Full Page	\$300.00
1/2 Page	\$175.00
1/4 Page	\$95.00
1/8 Page	\$45.00
1/12 Page	\$30.00

Place multiple ads and receive a discount!

Three (3) consecutive ads - 10% off

Eight (8) consecutive ads or more - 30% off

To place an ad, please contact:

Peggy Panagopoulos
ChemTech Consultants, Inc.
1370 Washington Pike, 4th Floor
Bridgeville, PA 15017
Telephone: 412-220-4612
Telefax: 412-221-5685
email: pegpana@chemtech88.com



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Contact: Jill Merrill
1050 William Pitt Way, Pittsburgh, PA 15238
412.826.3636 FAX 412.826.3640
E-Mail: jmerrill@air-comp.com

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Contact: Peggy Panagopoulos, Manager of Sales

Phone: 412-220-4612

Email: pegpana@chemtech88.com



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American Institute of Chemical Engineers
337 Fourth Avenue
Pittsburgh, PA 15222-2097

ADDRESS CORRECTION REQUESTED

<i>Tentative Meeting Schedule</i>		
<i>Date</i>	<i>Subject (Location)</i>	<i>Special Event</i>
<i>March 20</i>	<i>ESWP, Forensic Science</i>	
<i>April 18</i>	<i>Wheeling-Nisshin Plant Tour</i>	
<i>May</i>	<i>TBD</i>	<i>McAfee Awards Banquet</i>