AIChExtra

Postal Service Pays Homage to Josiah Willard Gibbs

Member Kenneth R. Jolls plays an instrumental role in the stamp development process

In May, the U.S. Postal Service (USPS) unveiled four new stamps honoring four distinguished scientists — thermodynamicist Josiah Willard Gibbs, geneticist Barbara McClintock, physicist Richard Feynman and mathematician John von Neumann. After coming upon Kenneth R. Jolls', professor of chemical engineering at Iowa State University, website on Gibbs (http://www.public.iastate.edu/~jolls/), the USPS retained his expertise to aid in the stamp design. Jolls was such an influencing factor in the design that the USPS renamed Gibbs as a thermodynamicist, rather than its original title of chemist, upon his recommendation.

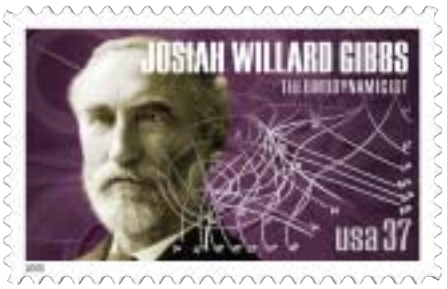
Jolls has devoted much of his professorial career to applying computer visualization technology to representing thermodynamic concepts that prior generations of researchers were forced to construct painstakingly from either wood or clay. The Gibbs stamp bears the two-dimensional map of the energy-entropy-volume function, specified by Jolls, from the fourth edition (1875) of "Theory of Heat" by Scottish physicist James Clerk Maxwell.

The journey on how Jolls became involved with the stamp design is a fascinating one. Jolls is not your typical chemical engineering professor. His first passion is music (his first degree was an A.B. in music from Duke University), and to this day, he actively pursues his craft (Mar. 2003, p. 75). However, a musician's salary doesn't always pays the bills, so Jolls headed back to school. He discovered that he excelled in the sciences, which explains how he eventually became a chemical engineering professor, first at Brooklyn Poly, then at Iowa State University. Thermodynamics, however, was not a subject that came naturally to him.

It wasn't until 1981, after reading Gibbs' work, did Jolls realize that he and Gibbs had much in common. "Here was an example of pure visual thinking being used, not just descriptively, but to explain phase-change in terms of thermodynamic theory," said Jolls. "I am a visual person, and it finally dawned on me that many of the ideas in thermodynamics were visualizable." But this was just the beginning. Gibbs only described the visualizations and, in fact, there were very few drawings in his Collected Works.

When Jolls discovered Gibbs' connection with J. C. Maxwell and the famous model that Maxwell constructed, everything came together. After reviewing the fourth edition of Maxwell's "Theory of Heat," where he paraphrased Gibbs' words and showed a map of the model, "I understood exactly what Gibbs had been saying," explained Jolls.

"Visual thinking utilizes powerful intellectual pathways that have traditionally been underused by scientists and engineers," notes Jolls. His mission has become marrying the sciences with the arts — educating all in his classroom via visualization.



Josiah Willard Gibbs (1839-1903) formulated the modern system of thermodynamic analysis. For this and other extraordinary achievements, Gibbs received some of the most prestigious awards of his era, including the Rumford Prize from the American Academy of Arts and Sciences.

Robert A. Brown Named President of Boston University

The Boston University Board of Trustees has selected AIChE lifetime member Robert A. Brown, a distinguished teacher, researcher, administrator and educational innovator, to be the school's 9th president. Brown is currently Provost of the Massachusetts Institute of Technology (MIT). He will assume the Boston University (BU) post on September 1, 2005.

Brown's appointment is the result of a nearly year-long, comprehensive examination by the BU Board of Trustees of both the school's future needs and dozens of potential candidates to determine who would be most qualified to lead one of the nation's largest private institutions of higher education.

"Bob Brown emerged as the single-most compelling individual to lead our institution," said David F. D'Alessandro, who is the Vice Chairman of the BU Board of Trustees and the head of the Presidential Search Committee. "He is a rare combination of scholar, teacher, innovator, and someone who has the vision and administrative strength to set a forward-looking tone and agenda for this very diverse, multi-faceted community.

"When you spend time with Bob," added Mr. D'Alessandro, "you also discover that he is a passionate student of universities and the things that can be done to make them better, greater places. We want that passion along with his talent and vision at BU, and we are delighted to call him our next president."

Brown began his academic career in 1979 when he joined the MIT faculty. He became a full professor in the Chemical Engineering Department in 1984 and was appointed chairman of that department in 1989. He subsequently served in a number of senior administrative roles, including Dean of Engineering, and was appointed provost in 1998.

Brown received his BS and MS from the University of Texas at Austin, in 1973 and 1974, respectively. He received his PhD from the University of Minnesota in 1978. He is a member of the National Academy of Sciences (elected 2001); American Academy of Arts and Sciences (1994) and the National Academy of Engineering (1991).

He is the recipient of AIChE's Professional Progress Award (1996) and the Alan P. Colburn Award (1986). His other honors include Young Author Award, American Association of Crystal Growth, 1984; Camille & Henry Dreyfus Teacher-Scholar Award, 1983; and a number of Outstanding Faculty Awards from the Department of Chemical Engineering, MIT in 1980, 1983, 1985 and 1988.

To enable members to make informed selections for the upcoming AIChE election, the 2006 director candidates have provided overviews of their experience, as well as their plans for future programs and directions for the Institute. These messages are in each candidate's own words. On the following pages are statements for director. President-elect candidate statements appeared in the June issue of *Extra*. Following publication in *Extra*, statements will be posted at http://www.aiche.org/candidates.

Voting dates and deadlines: Ballots will be mailed on August 10. Electronic proxy will also be available on this date. Directions on electronic proxy will be included with the ballot and emailed to members with email addresses on file. All ballots must be received by September 14. The Teller's Committee will meet to verify the results of the election on September 24. Election results will be announced in November at AIChE's Annual Meeting in Cincinnati, OH and in the December issue of *AIChExtra.*

2006 Election: Candidates for Directors

RAKESH AGRAWAL

STATEMENT & BIOGRAPHY

I believe that the key challenges facing AIChE are:

- Improving services for existing members in order to retain their allegiance to AIChE.
- Ensuring that young chemical engineers develop into long-term AIChE members.
- Identifying and providing the much needed resources to AIChE's various divisions and local sections.
- Striving to make AIChE relevant to practicing engineers, to those in education, and to those in government institutions.
- Bringing new and emerging chemical engineering disciplines into AIChE.
- Developing a strategic plan for the future growth of our profession.

As a Director, I will focus on these issues, some of which have been in existence for several years. They now require a fresh look for creative solutions.

Divisions and local sections are the backbone of AIChE. I believe that it is essential to provide proper resources for the volunteers serving these bodies.

AIChE must develop and execute a strategic plan that will address issues such as — What will our profession look like in ten years? How will our members' needs evolve, and how should AIChE serve these needs? A development and execution of such a plan is essential for AIChE's future. AIChE's membership must be deeply involved in developing this strategic plan.

I have been involved in a wide variety of AIChE activities. While serving as Chair of the Separation Division in 1994, its membership reached an all-time high. I also chaired the very successful Second Topical Conference on Separations. I served on the Publications Committee. I was a founding member of the Chemical Technology Operating Council and later became its chair. I am a consulting editor of the *AIChE Journal*.

Last Fall, I joined the School of Chemical Engineering at Purdue University as Winthrop E. Stone Distinguished Professor. Prior to this, I worked at Air Products and Chemicals, Inc. for 24 years, rising to the positions of Air Products Fellow and the first chair of its Technology Board. I am the inventor/co-inventor of 116 U.S. patents and over 500 non-U.S. patents. My inventions have been incorporated in more than 100 chemical plants. I received my chemical engineering degrees from IIT Kanpur, University of Delaware and MIT. Please email me your concerns/comments at agrawalr@purdue.edu.

AMOS A. AVIDAN

STATEMENT & BIOGRAPHY

As a Vice President of Bechtel Corp., and a Bechtel Fellow, I manage Bechtel's gas processing, liquefied natural gas (LNG), gas-to-liquids and coal gasification market sectors. I particularly enjoy steering our technology projects in areas of current interest to our clients, such as in LNG and coal gasification. Prior to joining Bechtel, I worked for Mobil, where my job responsibilities included management of upstream surface engineering, LNG technology, modeling and advanced control and simulation, and fluid catalytic cracking.

My chemical engineering education culminated in a PhD degree from the City University of New York, and I have authored or co-authored more than one hundred technical presentations, publications and patents. A member of the AIChE since 1979, I have served on the AIChE Industrial Advisory Board and I developed and taught the AIChE continuing education fluid bed technology course. I have also been a member of organizing committees of several conferences, including LNG-12 through LNG-15.

Directors of AIChE have administrative accountabilities and are also custodians of the Institute's vision, mission and strategic plan. As a Director, I would focus attention on, and steer the Institute towards addressing some of the key challenges I believe we face:

- The Institute needs to be of significant value to its members so that it will retain them and attract new ones. We need to reexamine what aspects of the Institute's offerings are relevant to the members, and are there new emerging ones that will enhance this value proposition.
- The Institute can be a strong proponent of the profession and a contributor to key policy issues. I believe its members, government and non-government agencies, and the public-at-large should perceive the Institute as "The Voice of Chemical Engineering."
- Globalization is both an increasing challenge that the Institute

and its members face, and an opportunity. I will promote collaboration with other associations, including ones outside of the U.S., and look for ways to make the Institute more relevant to the global chemical engineering community.

I believe that chemical engineering is even more exciting a field today than when I entered the profession. The Institute should convey this positive message to its current and prospective members, and to society.

KELLY D. BRYANT

STATEMENT & BIOGRAPHY

AIChE has been a part of my life since I was a student at University of Arkansas at Fayetteville. In 1994, I joined an AIChE local section and quickly became Section Chair. During a Leadership Development Conference, I was approached about becoming active on the National level and as a result, I have served on the Career and Education Operating Council (CEOC), Minority Affairs Committee, and the Diversity Task Force. I am currently the Chair of the CEOC and will be working with the Centennial Celebration Committee.

AIChE has provided me with opportunities to enhance my leadership skills, conduct effective meetings, and to meet members from a variety of backgrounds. Although AIChE has faced some challenges over the last few years, I believe that AIChE can be the premiere organization for chemical engineers. AIChE must appeal to diverse industries and promote itself as adding value to all career levels.

I believe that the following issues are of greatest concern for the Institute:

- Determining the value-add needed to retain members.
- Developing Institute activities, sessions, and programming with greater relevance to industry and recent college graduates.
- Promoting interactions between student members, recent college graduates, and industry.

If elected to the Board of Directors, I hope to bring a new perspective to issues that face the Institute and utilize my past leadership activities to help make AIChE the premiere organization for chemical engineers.

EMMANUEL DADA

STATEMENT & BIOGRAPHY

As AIChE has made remarkable improvements in the last year to turn years of deficit into budget surplus, addressing the issues of declining membership, providing quality services and listening to our members is critical for sustaining the new direction. The long-term viability of the Institute depends on developing sound strategies to attract, retain, and bring back former members, forming alliances with other organizations to bring benefits to our members, and generate positive net income.

If elected as a member of the Board of Directors of AIChE, I will work on the following:

- Revitalize our local sections by connecting them to national activities and making them more relevant and more responsive to the needs of the local members.
- Enable AIChE to provide products and services that generate funds for the Institute.
- Refocus our core values, and balance containing costs with providing new services and programs to our members.
- Support activities to provide essential services that attract and retain members.
- Support AIChE efforts in becoming the leading voice as a strong public advocate for our members and in addressing societal needs in areas of public outreach and policy.
- Identify programs and projects led by other organizations that we can collaborate with to the benefit of our members and the Institute.
- Seek alliances with other professional organizations to obtain common savings for and benefits to the Institute and to our members.
- Allocate adequate resources to respond to and take a leadership role in serving our members in the cutting edge of emerging fields of nanotechnology, sustainability, and bioengineering.
- Support the K-12 initiatives and scholarship programs for college students to provide a pipeline for future chemical engineers.
- Support the diversity initiatives of AIChE that encourage full participation and career success of all population groups.

Dada is Associate Research Fellow at FMC. His technical group is responsible for evaluating and contributing to emergent technologies in the area of process miniaturization and intensification. Prior to joining FMC in 1995, he worked at Rohm and Haas Company from 1989 to 1994. Dada received his BS from Obafemi Awolowo University, Nigeria and his MS and PhD in chemical engineering from Lehigh University in Bethlehem, Pennsylvania. Dada is an active member of the Delaware Valley Section and very active in the Institute for Sustainability. Dada also served as a program vice chair of the Process Development Sessions at the 2002 National Spring Meeting. He served as chair of the Minority Affairs Committee (MAC) from 2000-2002 and chair of the MAC Student Awards since 1999. He was awarded the AIChE-MAC Distinguished Service Award in 2000. Dada has served as the chair of the Diversity Task Force since 2002 and served on the Societal Impact Operating Council (SIOC) since 2001, becoming its vice chair in 2005. Dada is active in other professional organizations, serving as an associate member of the Committee on Minority Affairs of ACS and president of the NY/NJ Chapter of NOBCChE.

THOMAS R. HANLEY

STATEMENT & BIOGRAPHY

AIChE and the chemical engineering profession are in transition, facing an operating environment different from that of the past fifty years. The Institute must investigate methods for revenue generation and cost reduction while adjusting programs to meet established and emerging needs. I am encouraged by the Institute's recent accomplishments, and, as director, I will focus on maintaining these gains and investigating new opportunities, including:

- Enhanced interaction with student chapters, including the student program at national meetings and student chapter regional conventions
- Frequent review of the changing needs of established members
- Generation of revenue-producing activities similar to those in other professional societies
- Expansion of the AIChE Foundation to the individual, offering members the opportunity to support programs of interest
- Expansion of AIChE into global opportunities
- Determination of the "right size" for AIChE membership

Reduction in staff and overhead has reduced services. The balance between cost and service should be reviewed regularly to provide maximum member support. Recent collaborations with other technical societies have successfully reduced costs with no loss in service.

I have great confidence in AIChE and am indebted for the opportunities the Institute has given me. Working together, I'm certain AIChE will attain financial stability and ensure its continuing support to our profession.

After earning three degrees at Virginia Tech and three-plus years at the Air Force Materials Laboratory, I began my academic career and active involvement in AIChE at Tulane. I chaired the New Orleans Section and served as Tulane's Student Chapter Advisor, with that chapter receiving four national awards. At Rose-Hulman, I chaired the Terre Haute Section. As department chair at Louisiana Tech and FAMU/FSU I was the GAC for the 1986 Annual Meeting, the MPC for the 1988 Annual Meeting and the Tallahassee Section Chair. As dean of engineering at Louisville, I chaired the Student Chapters Committee, the Management Division, and the AIChE Foundation and served on the Career and Education Operating Council. I was provost at Auburn University from 2003 to 2005. I serve on the AIChE Foundation, the Industrial Advisory Board, and the North American Mixing Forum. I was named Fellow in 1995.

My university research, funded by NREL, NSF, GE, Colgate-Palmolive, United Catalysts and others, has produced 10 Ph.D. dissertations and 27 Masters theses. I am a member of the Board of Directors of Plasticolors and the engineering college advisory boards at Michigan Tech and Virginia Tech.

ROBERT HESKETH

STATEMENT & BIOGRAPHY

AIChE needs to increase its value to current and future members. Recent new initiatives giving financial benefits and providing on-line reference materials are excellent and should be continued. If elected to the board, I would seek renewed industrial support for employees attending meetings by encouraging programming that provides direct benefits to companies; these opportunities could be identified from input from plant executives. I would also establish new initiatives for students to experience the benefits of membership. I believe that the future of AIChE is dependent upon the strength of its membership. Increasing the membership through innovations that bring value to the membership will make AIChE a strong professional society.

I believe that we can strengthen our ties to students and industrial members through new initiatives on the local and national level and have given a few possibilities below.

Industry - Local Section Linkages

- Industry support of local sections based on perceived value to company
- Specialized training programs in emerging areas of engineering
- Coordinated public relations related initiatives

Industry - National Linkages

- Add more sessions and workshops at national and regional meetings that emphasize methods to integrate new ideas into the workplace
- Hands-on training sessions on new and emerging technologies
- Sessions focused on increasing work productivity through the soft skills (*e.g.,* time management & organizing skills, six sigma etc.)

Student Chapter - Local Section Linkages

- National membership incentives for students in line with other societies
- Training events in specialized areas led by experts in the local section
- Events that introduce local industries to students
- Industrial mentors for student chapters illustrating networking opportunities

Robert Hesketh is Professor and Chair of Chemical Engineering at Rowan University. He received his B.S. in 1982 from the University of Illinois and his Ph.D. from the University of Delaware in 1987. After his Ph.D. he conducted research at the University of Cambridge, England. Robert has been very active in the leadership of the education group of AIChE, having served in the roles of vice chair and chair of Group 4/4a Education from 1997 to 2002. Robert had the honor of being the chair of the first AIChE topical conference on education which was held in 2000. As a member of the Environmental Division and the Sustainability Forum, Robert is very active in promoting green engineering within the chemical engineering curriculum and has chaired sessions and presented papers on these topics.

JAMES R. SWARTZ

STATEMENT & BIOGRAPHY

Professor Swartz obtained his B.S.Ch.E. from South Dakota School of Mines and Technology in 1971 and worked for two years for Union Oil Co. of California. He then earned his M.S. and D.Sc. in chemical engineering and biochemical engineering, respectively, at MIT. After nearly 20 years in the pharmaceutical industry in various scientific and management positions, he moved to Stanford University in 1998 as a Professor of Chemical Engineering. His research focus is on cell-free protein synthesis and is motivated by applications in pharmaceutical production, patient-specific medicine, hydrogen production, and water purification. He has served as program chair and as chairman for the ACS Division of Biochemical Technology and received the James Van Lanen Distinguished Service Award from that division. In 1999, he was elected to the National Academy of Engineering. He served on the AIChE BioGenesis committee that formed the basis for the founding of the new Society for Biological Engineering and now serves on the management board for SBE. He also serves as a Director for the AIChE Food, Pharmaceutical, and BioEngineering Division.

As always, the chemical engineering profession is changing. It is especially important now that we embrace and guide those changes. We have an unprecedented opportunity to build upon a new foundational science: biochemistry, as defined in its broadest sense. I believe that we can do this while simultaneously strengthening our traditional intellectual foundation and the associated application areas. This is an exciting time, and we should be attracting more and more new members - but we are not. Instead we are losing members. Still there are hopeful signs. The new Society for Biological Engineering is gaining momentum under the able leadership of June Wispelwey and Professor Dan Wang, and our National Meeting programming remains strong.

In the next few years we have an important challenge to adapt AIChE to embrace our exciting opportunities and to renew the Institute as a vibrant and valuable figurehead and servant for a growing profession. To help with this, if elected, I would work to promote the following objectives:

- Design and promote programs that acquaint high school juniors and seniors with the fulfilling and lucrative opportunities in chemical engineering.
- Organize similar programs for university freshman with appealing prepared materials that stress the opportunities in chemical engineering.
- Guide SBE to complement and strengthen AIChE by promoting partnerships with other societies, by organizing important topical meetings, and by helping to coordinate and enlarge the applied biology focus within AIChE.
- Poll recently resigned members to determine how we can better serve their needs and then respond to those needs.
- Improve our national meetings and lower their cost.
- Help to guide ABET in modifying curricular guidelines to include biochemistry as a foundational science without eroding the solid chemical engineering discipline.

MATTHEW V. TIRRELL

STATEMENT & BIOGRAPHY

My present position is the Richard A. Auhll Professor and Dean of the College of Engineering at the University of California, Santa Barbara. From 1977 to 1999, I was member of the faculty of Chemical Engineering and Materials Science at the University of Minnesota, where I served as department head from 1995 to 1999. My technical expertise is in polymer science and biomaterials, fields in which I have published nearly 300 journal articles and supervised about 60 Ph.D. dissertations.

Given this background in education and research, it is not surprising that my principal involvement has been with the publications and technical programming activities of AIChE. For nearly a decade, from 1991 to 2000, I was Editor of the *AIChE Journal*. Developments and innovations during that period included the expansion of the editorial team, introduction of the Perspectives section that now leads off every issue, and growth of the number of articles handled by 50%. I have presented papers at every annual meeting for the last thirty years. I have consistently been involved with the service and leadership activities of AIChE. I was a member of the founding executive committee of the Chemical Engineering Technology Operating Council, serving successively as vice chair, chair, past chair and member of CTOC from 1998 to 2002. I have also been the grateful recipient of several awards and recognitions from AIChE, including the Colburn, Stine and Professional Progress Awards. I gave the Institute Lecture in 2001.

There are several issues that I could usefully address as a member of AIChE's Board of Directors. One is capitalizing on the position of AIChE to improve the connections between universities and industry in the chemical technology sector. My research and technical advisory activities with industry lead me to conclude that technological problems arising in industry are a much richer source of good academic research than is widely appreciated. AIChE can play a major role, through its programming, forums and publications to enhance creative activity at this interface. A second area where I would work is the evolving position of AIChE toward biological engineering. The fostering of the new Society of Biological Engineering is a very positive step that needs considerable follow-through to realize its full potential. For example, I will chair the 2006 International Conference on Bio-Nanotechnology. A third major goal is to enhance the connections of AIChE to other organizations, including the NAE, AAAS and ACS.

John Mooney to Recieve the 2005 Kazutoshi Fujimara Award

The 2005 Kazutoshi Fujimura Award for Lifetime Achievement in International Technology Cooperation and Development has been awarded to John J. Mooney, President of the Environmental and Energy Technology Policy Institute and formerly Chief Process Engineer and Technical Director for Engelhard Corporation.

The award will be presented to Mooney at the 7th World Congress of Chemical Engineering in Glasgow, Scotland, on Wednesday, July 13. The recipient will also receive $10,000 and a plaque. The award is sponsored by Hyperion Catalysis International and Bioveris in Cambridge, MA.

The second ever presented, the Fujimura award recognizes the work of an individual in helping to develop and propagate new technology internationally. The award recognizes the lifetime achievement of an individual in international chemical engineering development.

Mooney has contributed significantly to the development and propagation of catalytic converter technologies and especially to the development and successful introduction of the 3-way catalytic converter for more than three decades. The vehicle emission control technologies that Mooney helped to introduce and promote now constitutes a global market of more than $70 billion annually.

Mooney played a major role in persuading the governments of China and India to eliminate the use of lead in gasoline and is now active in attempting to eliminate the use of leaded fuel in 51 countries of sub-Saharan Africa. Mooney is a past winner of numerous other awards for his technical and management contributions, including the AIChE A.D. Little Award (1999) and US National Medal of Technology (2002).

The Fujimura Award is administered by the AIChE Management Division. A selection committee consisting of representatives of the three international chemical engineering confederations and Norman Li, the first recipient, plus Management Division representatives and AIChE staff selected the award recipient.

Hans K. Fauske Honored for Outstanding Achievement

Hans K. Fauske (AIChE member since 2/14/69 and Fellow since 1985) recently received "The Outstanding Achievement Award" from The University of Minnesota. The Outstanding Achievement Award recognizes graduates who have attained unusual distinction in their chosen fields or professions, or in public service, and who have demonstrated outstanding achievement and leadership on a community, state, national or international level

Hans K. Fauske is President of Fauske & Associates, Inc., a subsidiary of Westinghouse Electric Company. He previously worked at Argonne National Laboratory in 1980 where he served as the first Director of the Fast Reactor Safety Technology Management Center and was responsible for the planning and management of the DOE program. Since then he has been involved in projects covering a wide range of safety issues.

Fauske provided overall technical direction for the AIChE Design Institute for Emergency Relief Systems (DIERS), which was funded by 28 chemical firms in the U.S.A. and abroad. Currently, he is working to help resolve potential safety issues in connection with the waste storage tanks at the Hanford site and develop inherently safe nuclear and chemical process reactor concepts.

Among his many awards received during his productive career, are the AIChE Donald Q. Kern Award for his significant contributions in the area of nuclear and chemical process safety and the AIChE Robert E. Wilson Award in Nuclear Chemical Engineering for his leadership and contributions in developing methods to help assure safety in the nuclear power and chemical process industries.

OBITUARIES

David B. Ardern, 93, Media, PA
Chong-Eun Chang, 67, La Canada, CA
Kenneth N. Dailey, 68, Red Bluff, CA
James F. Geiger, 81, Pt. Orchard, WA
Robert W. McGill, 77, Lakes Charles, LA
Leo Post, 87, New City, NY
Marshall Propst, 81, St. Simons Island, GA
Philip M. Roth, 66, San Anselmo, CA
Tetsu Shimatani, 47, Narashino, Japan
John F. Tourtellotte, Sr., 77, Birmingham, AL
Robert W. Wansbrough, 69, Houston, TX

Engineering Faculty Seminar Sharpens Teaching Skills

The Essential Teaching Seminar for Engineering Faculty (ETS; Sept. 22–24, San Francisco State University) offers engineering and engineering technology faculty a hands-on and supportive forum to hone their teaching skills. Regardless of their experience or engineering discipline, faculty will learn how to apply the theory and principles behind effective learning, increase their repertoire of techniques, and practice planning and teaching techniques in a supportive setting.

Participants will prepare and teach actual classes in small group settings, with each class videotaped and assessed by faculty mentors and other participants. This collaborative "learn by doing" format ensures that participants will make substantive gains by the end of the workshop. Each workshop is limited to 30 participants, and participants will be selected on a first-come-first-served basis.

The $300 registration fee includes all workshop materials and scheduled meals. Participants are responsible for their own travel and accommodations.

SIGN UP TODAY!

To register, go to http://www.asme.org/education/prodev/teach. Questions about the workshop application process can be directed to Marian Heller, Coordinator, Educational Activities, ASME at mail to: hellerm@asme.org or (212) 591-7079.