

AICHE Elects New Fellows

Candidates for AIChE Fellow are nominated by their peers, and must have significant chemical engineering practice (generally 25 years) and have been a member of AIChE for at least 10 years, with at least three years as a senior member. Here are some of the recently elected Fellows. More Fellows will be introduced in future issues of *CEP*.



Douglas J. Cooper is Professor and Head of the Dept. of Chemical and Biomolecular Engineering at the Univ. of Connecticut, where his interests include process control system analysis and design, entrepreneurship, creativity, and leadership. Recently, he has worked on engag-

ing under-represented students in science, technology, engineering, and mathematics (STEM). He has also created innovative software used by academic institutions for teaching automatic process control. His company, Control Station, Inc., offers industrial process control solutions and services to manufacturers. He has authored or co-authored 85 publications and has garnered millions in research funding from government and industry.



Mahmoud M. El-Halwagi is the McFerrin Professor of Chemical Engineering at Texas A&M Univ. His research focuses on sustainable design through process integration, including the development of systematic and generally applicable tools for optimal synthesis, retrofitting, and

the design of industrial processes. He has documented his work in 210 articles, three textbooks, seven edited books, and 60 book chapters. He is a past chair of AIChE's Computing and Systems Technology (CAST) Div. He earned BS and MS degrees at Cairo Univ., and a PhD at the Univ. of California, Los Angeles, all in chemical engineering.



Harold H. Kung is the Walter P. Murphy Professor of Chemical and Biological Engineering at Northwestern Univ. An expert in catalysis, reaction engineering, energy storage, and environmental science, he is the author of nearly 300 articles, two books, and ten book chapters, and since 1996 has edited the journal *Applied Catalysis A*. He has served on advisory boards of the National Research Council and many other organizations. He is also a Fellow of the American Association for the Advancement of Sciences, where he is on the steering committee of the Industrial Science and Technology Section.



Eleftherios Terry Papoutsakis is the Eugene DuPont Chair at the Univ. of Delaware's Biotechnology Institute. His research focuses on systems biology, metabolic engineering, and experimental and computational genomics, with applications in stem-cell biology and the produc-

tion of biofuels and chemicals from biomass. He previously served on the faculties of Northwestern Univ. and Rice Univ. His publications experience includes editorship of *Biotechnology and Bioengineering*. He is a fellow of the American Academy of Microbiology, the American Association for the Advancement of Science, and the American Institute of Medical and Biological Engineers.



Faustino L. Prado, P.E., is President of Prado & Associates, a consulting firm that provides technology development and plant design services. He founded his consultancy in 1983 after more than a decade in industry, and has enjoyed a diverse career in research, process engineering,

project management, and plant design in the chemicals, fertilizers, forest products, pharmaceutical products, and environmental fields. He has also served as an adjunct professor at Florida Institute of Technology and the Univ. of South Florida. He is a licensed Professional Engineer in Florida and a Chartered Engineer in the Republic of Ireland.



Jan Wagner is Professor Emeritus of Chemical Engineering at Oklahoma State Univ., where he served on the faculty for 34 years, and is also the Senior Risk/Reliability Engineer at ABSG Consulting. His chemical engineering and process safety experience includes process

hazard analyses (PHAs), dispersion analyses, and pressure relief system sizing to help meet OSHA's process safety management (PSM) regulation and EPA's risk management plan (RMP) rule. He has over 60 publications and has written risk assessment and relief sizing guidelines for AIChE, Safety and Chemical Engineering Education (SACHE), and the Center for Chemical Process Safety (CCPS).

AICHE, CCPS Offer Recommendations for Establishing Process Safety Investigation Boards

AICHE and its Center for Chemical Process Safety (CCPS) have released a new white paper, “Recommendations for Establishing Process Safety Investigation Boards.” The white paper’s recommendations are designed to guide the establishment of Process Safety Investigation Boards (PSIBs) in countries where they have not been established, and also to provide suggestions for improving the effectiveness of boards that do exist.

Scott Berger, CCPS’s outgoing executive director, explained that expanding the number of PSIBs and improving their quality will result in more effective investigations of catastrophic events, as well as an improved ability to identify their causes and recommend specific actions to prevent recurrence. Communicating those recommendations to facilities and populations vulnerable to similar incidents, and recommending improvements to governmental and private sector response, are other ways PSIBs can strengthen process safety practice, Berger said.

The white paper points out that the process industries support essential economic and social development. However, their dependence on highly hazardous materials and processes can present daunting challenges. While incidents are rare, a single catastrophic event can have extraordinary consequences, with loss of life, environmental contamination, and disruptions of supply chains on which much of modern life depends.

“Without a stronger safety infrastructure, the global pattern of incidents can be projected to grow as larger populations demand greater productivity” and a higher standard of living over the next several decades, the report says.

However, because catastrophic incidents are rare, facilities are likely to be poorly equipped to self-investigate. And, even if they are able to conduct thorough investigations, the lessons learned may not be widely shared. PSIBs can provide the expertise to investigate these accidents and develop recommendations to prevent recurrence.

The white paper outlines key factors critical to the success of a PSIB, including creating a high-performance organization through a board with diverse backgrounds and expertise that operates transparently; defining a clear scope of investigations; conducting timely, in-depth investigations to identify root causes and contributing causes, and then issuing recommendations supported by the evidence; communicating lessons learned to stakeholders; and encouraging cooperation of the investigated company, for example, protecting it from suits related to information unique to PSIB investigations.

According to Berger, the recommendations align with CCPS’s Vision 20/20, which envisions a future of great process safety built on five industrial tenets: committed culture, disciplined adherence to standards, intentional competency development, vibrant management systems, and enhanced application of lessons learned. Vision 20/20 is also founded on four themes to address society’s needs for enhanced stakeholder knowledge, responsible collaboration, harmonization of standards, and meticulous verification.

“The continued growth of process industries around the world should focus us all — engineers, corporate leaders, regulators, and policymakers — on learning from past mistakes so we can eliminate industrial catastrophes,” said Berger.

For a copy of the white paper, visit the Public Affairs and Information Committee’s web page: <http://www.aiche.org/community/committees/public-affairs-information-committee-paic>.

MAC@25: MINORITY AFFAIRS COMMITTEE PREPARES FOR 25TH ANNIVERSARY CELEBRATION

This year, AIChE’s Minority Affairs Committee (MAC) marks a quarter-century of leadership in supporting the professional growth of AIChE members and mentoring young engineers from communities that have been underrepresented in chemical engineering. The committee will celebrate its history and accomplishments in November during the 2015 AIChE Annual Meeting in Salt Lake City, UT, with special programs, guest speakers, a reception, and the presentation of the committee’s Pioneers of Diversity Awards — recognizing people who have most influenced the success of MAC, AIChE, and the profession.

As part of MAC’s anniversary year activities, the committee is collecting testimonials from its leaders and participants, attesting to the progress and contributions made by the committee and its active members since MAC’s founding in 1990. These perspectives will be incorporated into an archive project consisting of oral and first-person histories, describing MAC’s achievements and pointing out a path for MAC’s continued influence.

The leaders of MAC are inviting past officers, recipients of AIChE’s Minority Scholarships, AIChE leaders, and members-at-large to help document the history of MAC by sharing anecdotes, reflections, and knowledge. To find out how to contribute to the MAC archive project, and to learn more about MAC’s 25th anniversary activities, email the committee at MAC25@aiche.org.