

New CACHE Trustee

Peter Bullemer
Honeywell Laboratories

Peter Bullemer is a research and technology program manager at Honeywell Laboratories. He received a B.A. in Psychology (1976) and Ph.D. in Experimental Psychology (1988) from the University of Minnesota. Involved in Honeywell corporate research and development since 1987, Dr. Bullemer has extensive programmatic and technical leadership experience in research and development of training, information and decision aiding technologies for human operators in complex interaction environments. He is a founder and visionary of a multiyear effort to understand and improve abnormal situation management practices in industrial process control industry. He initiated the Abnormal Situation Management program in 1993 as a series of extensive field studies within the plant setting to characterize the nature of the problem, define short- and long-term solution requirements, and develop an R&D roadmap. The initial phase results were instrumental in forming the Abnormal Situation Management (ASM) Joint R&D Consortium in 1994. In 1995, Dr. Bullemer was the principal investigator with overall technical lead responsibility, on a 3.5-year, \$16.6 million cooperative agreement grant from NIST ATP program, *Collaborative Decision Support for Industrial Process Control*. In this role, he led the definition of technical scope and integration of technical developments in intelligent software architecture, process diagnostics, dynamic planning and user interface design of a collaborative decision support prototype.

Dr. Bullemer is the current program manager and principal investigator of the ASM Consortium's new three-year program (1999-2001) to transition the technical innovations of the NIST program into product development. Key objectives of this program include demonstrating feasibility of the solution concepts in the operational environment, initiating product development interest, informing product development organizations of the solution requirements, and consulting with applications developers in the operational setting. His current research interests include:

- Impact of culture and organizational practices on the effective use of technology
- Design of human-system interaction to improve human performance and learning
- Development of human-centered systems engineering methodologies

New CACHE Trustee

James N. Michaels

Merck & Co. Inc.

Dr. Michaels received his B.S. and M.S. in Chemical Engineering from the University of California at Berkeley in 1977, a Diploma in Physical Chemistry from Imperial College, London in 1978, and an Sc.D. in Chemical Engineering from M.I.T. in 1983. He joined the Chemical Engineering faculty at U.C. Berkeley in 1984 where his research program focused on atomic mobility in the solid-state with application to catalysis and solid-oxide electrochemical cells. In 1990, he joined the Central Research Laboratory of Mobil Research and Development Corporation where he worked on projects ranging from oxidation catalysis to oil reservoir wettability. In 1993, Dr. Michaels joined the Manufacturing Division of Merck & Co., Inc., where he established a particle technology group that supports R&D and global technical services groups in the transfer of new products into manufacturing and troubleshooting of pharmaceutical products and processes.

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Babatunde A. Ogunnaike

DuPont

Babatunde A. (“Tunde”) Ogunnaike received his B.S. degree in Chemical Engineering from the University of Lagos, Nigeria, in 1976; the M.S. degree in Statistics, and the Ph.D. degree in Chemical Engineering (specializing in Process Control) from the University of Wisconsin-Madison, both in 1981. From 1981-1982 he was a Research Engineer with the Process Control group of the Shell Development Corporation in Houston, Texas; from 1982 to 1988 he was a professor at the University of Lagos, Nigeria, with joint appointments in Chemical Engineering and Statistics. He joined the Advanced Control and Modeling group at DuPont in 1989 where he is currently a Research Fellow. He has also been an adjunct professor in Chemical Engineering Department of the University of Delaware since 1989. He is currently an Associate Editor of the journal “Industrial and Engineering Chemistry Research”. His research interests include identification and control of nonlinear systems, modeling and control of polymer reactors and distillation columns, implications of design on process controllability, design of inherently robust processes, applied statistics, and reverse engineering biological control systems for process applications. He remains very active in the COMPUTERS AND SYSTEMS TECHNOLOGY (CAST) Division of the American Institute of Chemical Engineers (AIChE).