

Recipients of John R. Ragazzini Award

2004

M. Spong 2005

2006 2007

2003

S.P. Boyd 2002

R.F. Stengel 2001

D.P. Bertsekas 2000

H.K. Khalil 1999

K. Ogata 1998

P. Dorato 1997

W.R. Perkins 1996

D.M. Auslander 1995

J.B. Pearson 1994

No Award 1993

D.E. Seborg 1992

T.F. Edgar 1991

M.J. Rabins 1990

K.S. Narendra 1989

W.H. Raye 1988

W.E. Vander Velde 1987

G.J. Thaler 1986

T. Kailath 1985 1982

H.M. Paynter 1983

C.A. Desoer 1982

A.E. Bryson, Jr. 1981

Y. Takahashi 1980

M. Athans 1979

J.R. Ragazzini

2004: Mark W. Spong

Citation: For outstanding contributions to control education through course, textbook,

laboratory development, and the invention and commercialization of innovative laboratory experiments.

Biography: Mark W. Spong is the Donald Biggar Willett Professor of Engineering, Professor of General Engineering, and Research Professor in the Coordinated Science Laboratory at the University of Illinois at Urbana-Champaign. His current interests include nonlinear control theory, mechatronics, and robotics. He received the B.A. degree, magna cum laude and Phi Beta Kappa, in mathematics and physics from Hiram College in 1975, the M.S. degree in mathematics from New Mexico State University in 1977, and the M.S. and D.Sc. degrees in systems science and mathematics in 1979 and 1981, respectively, from Washington University in St. Louis. In 1984 he joined the faculty of the University of Illinois at Urbana-Champaign.

At Illinois he is the Director of the College of Engineering Robotics and Automation Laboratory, which he founded in 1987, and Director of the John Deere Mechatronics Laboratory, which he founded in 1995. He has held Visiting Professorships at the University of Waterloo, Canada, the CINVESTAV del IPN, Mexico City, the Lund Institute of Technology, Sweden, the Laboratory of Automatic Control (LAG), Grenoble, France, the Technological University of Compiegne, France, the Katholiek University, Leuven, Belgium, The National University of Singapore, and the Technical University of Munich, Germany, and has served as a consultant to industry and government.

Professor Spong has received several awards including the Senior U.S. Scientist Research Award from the Alexander von Humboldt Foundation, the O. Hugo Schuck Award from the American Automatic Control Council, the Distinguished Member Award from the IEEE Control Systems Society and the IEEE Third Millennium Medal. He is a Fellow of the IEEE and past Editor-in-Chief of the IEEE Transactions on Control System Technology. He served as Vice President for Publication Activities and a member of the Board of Governors of the IEEE Control Systems Society and is President-Elect of the Society for 2004. He has published over 170 technical articles in control and robotics and is co-author of two books, Robot Dynamics and Control, John Wiley & Sons, Inc., 1989 (with M. Vidyasagar) and Robot Control: Dynamics, Motion Planning, and Analysis, IEEE Press, 1992 (with F. Lewis and C. Abdallah). In addition, he is President of Mechatronic Systems, Inc., a company that he founded in 1996 to produce and market innovative laboratory experiments for control systems research and education. The experimental devices that he invented, including the Pendubot and the Reaction Wheel Pendulum, are now in use at more than 100 universities and research laboratories in North and South America, Europe, Africa, Asia, and Australia.

2003: Stephen P. Boyd

Citation: For excellence in classroom teaching, textbook and monograph p

undergraduate and graduate mentoring of students in the area of systems, control, and optimization.

Biography: Stephen P. Boyd is the Samsung Professor of Engineering, Professor of Electrical Engineering, and Director of the Information Systems Laboratory at Stanford University. His current interests include computer-aided control system design, and convex programming applications in control, signal processing, and circuit design. Professor Boyd received an AB degree in Mathematics, summa cum laude, from Harvard University in 1980, and a PhD in EECS from U. C. Berkeley in 1985. In 1985 he joined the faculty of Stanford's Electrical Engineering Department.

Professor Boyd has held visiting Professor positions at Katholieke University (Leuven), McGill University (Montreal), Ecole Polytechnique Federale (Lausanne), Qinghua University (Beijing), Universite Paul Sabatier (Toulouse), and Royal Institute of Technology (Stockholm). In 1999, during a leave from Stanford, he co-founded the company Barcelona Design, which develops tools for CMOS analog and mixed-signal circuit synthesis. Professor Boyd is the author of many research articles and three books: Linear Controller Design: Limits of Performance (with C. Barratt, 1991), Linear Matrix Inequalities in System and Control Theory (with L. El Ghaoui, E. Feron, and V. Balakrishnan, 1994) and Convex Optimization (with S. Boyd, 2003). Professor Boyd's honors include an ONR Young Investigator Award, a Presidential Young Investigator Award, the 1992 AACC Donald P. Eckman Award, and a Hugo Schuck best paper award (with H. Hindi and B. Hassibi). His teaching awards include the Perrin Award for Outstanding Undergraduate Teaching in the School of Engineering, and an ASSU Graduate Teaching Award. He is a Distinguished Lecturer of the IEEE Control Systems Society, and a Fellow of the IEEE. He was a member of the Board of Governors of the IEEE control systems society from 1989 to 1992.

2002: Robert F. Stengel Citation: For outstanding ability to motivate and educate undergraduate students in optimal control, estimation, and flight mechanics.

Biography: Robert Stengel is Professor and former Associate Dean of Engineering and Applied Science at Princeton University. Prior to his 1977 Princeton appointment, he was with The Analytic Sciences Corporation, Charles Stark Draper Laboratory, U.S. Air Force, and National Aeronautics and Space Administration. A principal designer of the Project Apollo Lunar Module manual attitude control logic, he also contributed to the design of the Space Shuttle guidance and control system. From 1977 to 1983, he was Director of Princeton's Flight Research Laboratory, where he investigated aircraft flying qualities, digital control, and system identification using two variable stability, fly-by-wire aircraft. Current research interests include bioinformatics, nonlinear, robust, and adaptive control systems, dynamics of aerospace vehicles, optimization, and intelligent systems.

Dr. Stengel received degrees from M.I.T. (Aeronautics & Astronautics, S.B., 1960) and Princeton University (Aerospace and Mechanical Sciences, M.S.E., M.A., Ph.D., 1965, 1966, 1968). He is a Fellow of the IEEE and a Fellow of the AIAA. He received the AIAA Mechanics and Control of Flight Award (2000) and is a recipient of the FAA's first annual Excellence in Aviation Award (1997). He was Associate Editor at Large of the IEEE Transactions on Automatic Control, Vice Chairman of the Congressional Aeronautical Advisory Committee, and Chairman of the AACC Awards Committee. He has served on numerous governmental advisory committees. He has been a member of the Program Council for the New Jersey Space Grant Consortium and of the National Research Council Committee on Naval Capabilities for Theater Missile Defense.

Dr. Stengel directs the Laboratory for Control and Automation and the undergraduate Program in Robotics and Intelligent Systems at Princeton. He has taught courses on robotics and intelligent systems, control and estimation, aircraft flight dynamics, and space flight (the freshman seminar, From the Earth to the Moon). Dr. Stengel wrote the book, Optimal Control and Estimation (Dover, 1994) and has authored or co-authored numerous technical papers and reports.