

# Bio Sketch

## 1 Introduction

**Anthony Ephremides** received his B.S. degree from the National Technical University of Athens (1967), and M.S. (1969) and Ph.D. (1971) degrees from Princeton University, all in Electrical Engineering. He has been at the University of Maryland since 1971, and currently holds a joint appointment as Professor in the Electrical Engineering Department and in the Institute of Systems Research (ISR) of which he is a founding member. He is co-founder of the NASA Center for Commercial Development of Space on Hybrid and Satellite Communications Networks established in 1991 at Maryland as an off-shoot of the ISR. He served as Co-Director of that Center from 1991 to 1994. He was a Visiting Professor in 1978 at the National Technical University in Athens, Greece, and in 1979 at the EECS Department of the University of California, Berkeley, and at INRIA, France. During 1985-1986 he was on leave at MIT and ETH in Zurich, Switzerland. He was the General Chairman of the 1986 IEEE Conference on Decision and Control in Athens, Greece and of the 1991 IEEE International Symposium on Information Theory in Budapest, Hungary. He also organized two workshops on Information theory in 1984 (Hot Springs, VA) and in 1999 (Metsovo, Greece). He was the Technical Program Co-Chair of the IEEE INFOCOM in New York City in 1999 and of the IEEE International Symposium on Information theory in Sorrento, Italy in 2000. He has also been the Director of the Fairchild Scholars and Doctoral Fellows Program, an academic and research partnership program in Satellite Communications between Fairchild Industries and the University of Maryland. He won the IEEE Donald E. Fink Prize Paper Award (1992) and he was the first recipient of the Sigmobility Award of the ACM (Association of Computer Machinery) for contributions to wireless communications in 1997. He has been the President of the Information Theory Society of the IEEE (1987) and has served on its Board of Governors almost continuously from 1981 until the present. He was elected to the Board of Directors of the IEEE in 1989 and 1990. Dr. Ephremides has authored or co-authored over 100 technical journal papers and 300 technical conference presentations. He has also contributed chapters to several books and edited numerous special issues of scientific journals. He has also won awards from the Maryland Office of Technology Liaison for the commercialization of products and ideas stemming from his research. He has served on the Editorial Boards of the IEEE Transactions on Automatic Control, IEEE Transactions on Information theory, the Journal of Wireless Networks, and the International Journal of Satellite Communications. He has been the Dissertation Supervisor of over twenty Ph.D. students who now hold prominent positions in academia, industry, and research labs. He is the founder and President of Pontos, Inc., a Maryland company that provides technical consulting services, since 1980. Dr. Ephremides' interests are in the areas of communication theory, communication systems and networks, queueing systems, signal processing, and satellite communications. His research has been continuously supported since 1971 by NSF, NASA, ONR, ARL, NRL, NSA, and Industry.

**Lang Tong** received the B.E. degree from Tsinghua University, and M.S. and Ph.D. degrees from the University of Notre Dame, Notre Dame, Indiana. He was a Postdoctoral Research Affiliate at the Information Systems Laboratory, Stanford University in 1991. Currently, he is an Associate Professor in the School of Electrical and Computer Engineering, Cornell University, Ithaca, New York.

Dr. Tong's research is in the general areas of statistical signal processing, information theory, and wireless networks. His recent work focuses on the cross layer design of large scale sensor networks, signal processing techniques for random access, and detection and estimation in wireless networks.

Dr. Tong received Young Investigator Award from the Office of Naval Research in 1996, and the Outstanding Young Author Award from the IEEE Circuits and Systems Society.

**Andrea Goldsmith** received the B.S., M.S., and Ph.D. degrees in electrical engineering from U.C. Berkeley in 1986, 1991, and 1994, respectively. From 1986-1990 she was affiliated with Maxim Technologies, where she worked on packet radio and satellite communication systems, and from 1991-1992 she was affiliated with AT&T Bell Laboratories, where she worked on propagation models and channel estimation for cellular systems. She was an assistant professor of Electrical Engineering at the California Institute of Technology from 1994-1998, and then joined the Electrical Engineering department at Stanford University where she is now an associate professor. Her research includes work in the capacity of wireless channels and networks, wireless communication and information theory, adaptive resource allocation in wireless networks, multiantenna wireless systems, energy-constrained wireless communications, wireless communications for distributed control, and cross-layer design for cellular systems, ad-hoc wireless networks, and sensor networks.

Dr. Goldsmith holds the Bredt Faculty Development Scholar Chair at Stanford and is a recipient of the National Academy of Engineering Gilbreth Lectureship, the Alfred P. Sloan Fellowship, the National Science Foundation CAREER Development Award, the Office of Naval Research Young Investigator Award, the National Semiconductor Faculty Development Award, the Okawa Foundation Award, and the David Griep Memorial Prize from U.C. Berkeley. She was an editor for the IEEE Transactions on Communications from 1995 to 2002 and has been an editor for the IEEE Wireless Communications Magazine since 1995. She is also an elected member of Stanford's Faculty Senate and the Board of Governors for the IEEE Information Theory Society.

**P. R. Kumar** is the Franklin W. Woeltge Professor of Electrical and Computer Engineering, and a Research Professor in the Coordinated Science Laboratory, at the University of Illinois, Urbana-Champaign. He was the recipient of the Donald P. Eckman Award of the American Automatic Control Council. He has presented plenary lectures at the SIAM Annual Meeting and the SIAM Control Conference in 2001, the IEEE Conference on Decision and Control in San Antonio, Texas, 1993, the SIAM Conference on Optimization in Chicago, 1992, the SIAM Annual Meeting at San Diego, 1994, The Fifth Stochastik-Tage: German Open Conference on Probability and Statistics, Magdeburg, Germany, 2002, 10th Mediterranean Conference on Control and Automation, Lisbon, 2002, Brazilian Automatic Control Congress, and the Third Annual Semiconductor Manufacturing, Control and Optimization Workshop. He is a co-author with Pravin Varaiya of the book, "Stochastic Systems: Estimation, Identification and Adaptive Control." He serves on the editorial boards of Communications in Information and Systems, Journal of Discrete Event Dynamic Systems; Mathematics of Control Signals and Systems; Mathematical Problems in Engineering: Problems, Theories and Applications; and in the past has served as Associate Editor at Large for IEEE Transactions on Automatic Control; Associate Editor of SIAM Journal on Control and Optimization; Systems and Control Letters; Journal of Adaptive Control and Signal Processing; and the IEEE Transactions on Automatic Control. He is a Fellow of IEEE. Professor Kumar's current research interests are in wireless networks, distributed real-time systems, wafer fabrication plants, and machine learning.