

APPENDIX B: BIOGRAPHIES OF PANELISTS

PANELISTS

Name: Magdy F. Iskander, Panel Chair
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Magdy F. Iskander is a Professor of Electrical Engineering at the University of Utah. From 1997-99 he had an appointment as Program Director, in the Electrical and Communication Systems Division of the National Science Foundation. At NSF he formulated and directed a “Wireless Information Technology and Networks” initiative in the Engineering Directorate and as a result funded over 29 projects in the microwave/millimeter wave devices, RF MEMS, propagation modeling, and the antennas areas. His experience at NSF has significantly influenced his activities in the Antennas and Propagation Society where he has been a member of the AdCom (1997-99) and, more recently, was the General Chair of the 2000 IEEE AP-S Symposium which promoted interdisciplinary research in the wireless communications area and encouraged the organization of NSF, DARPA, ARL, and wireless-industry-sponsored sessions. He has also been an active participant and long-time supporter of technology-based education.

Magdy has been with the University of Utah since 1977, and is presently the Director of the Center of Excellence for Multimedia Education and Technology (CAEME). The center is presently funded by NSF to formulate the Conceptual Learning of Engineering (CoLoE) consortium and develop the associated educational software. In 1986, he established the Engineering Clinic Program to attract industrial support for projects for the engineering students at the University of Utah. Since then, more than 105 projects have been sponsored by 33 corporations from across the US. The Clinic Program now has a large endowment for scholarships and a professorial chair. He has received the Curtis W. McGraw ASEE National Research Award for outstanding early achievements, 1985; the ASEE George Westinghouse National Award for innovation in engineering education, 1991; the 1992 Richard R. Stoddard Award from the IEEE EMC Society; and the University of Utah Distinguished Teaching Award, 2000. He is a fellow of IEEE and was a member of the National Research Council Committee on Microwave Processing of Materials.

He spent sabbatical and other short leaves at the Polytechnic University of New York; Ecole Superieure D'Electricite, France; UCLA; the Harvey Mudd College; the Tokyo Institute of Technology; the Polytechnic University of Catalunya, Spain; and at several universities in China including Tsinghua University, Beijing; Southeast University, Nanjing; Shanghai Jiaotong University, Suzhou University, and Yangzhou University. He was also a member of the WTEC panel on “Wireless Technology” and, as a part of the panel, he visited many wireless companies in Europe and Japan to assess US competitiveness in this technology. He presented a US perspective and a summary of the panel findings in the special symposium on mm-wave technology sponsored by the Ministry of Post and Telecommunications in Japan.

He authored a textbook on *Electromagnetic Fields and Waves*, published by Prentice Hall, 1992; edited the *CAEME Software Books*, Vol. I, 1991, and Vol. II, 1994; and edited four other books on *Microwave Processing of Materials*, all published by the Materials Research Society, in 1990, 1992, 1994, and 1996. He edited two special issues of the *Journal of Microwave Power*, on “Electromagnetics and Energy Applications” and on “Electromagnetic Techniques in Medical Diagnosis and Imaging.” Dr. Iskander also edited a special issue of the *ACES Journal* on “Computer-Aided Electromagnetics Education” and the proceedings of both the 1995 and 1996 International Conference on Simulation and Multimedia in Engineering Education. He was the General Chairman of the 1996 Frontiers in Education Conference sponsored by the Computer and Education Societies of IEEE and the General Chair of the 2000 IEEE AP-S Symposium and URSI Meeting in Salt Lake City. He has published over 170 papers in technical journals, has 8 patents, and has made numerous presentations in technical conferences. He was a Distinguished Lecturer for the Antennas and Propagation Society of IEEE (1994-97) and, during his tenure as a

distinguished lecturer, he gave lectures in Brazil, France, Spain, China, Japan, and at a large number of US universities and IEEE chapters.

He is the founding editor of the journal, *Computer Applications in Engineering Education* (CAE), published by John Wiley & Sons, Inc., which received the excellence in publishing award in 1993. He was an associate editor of the *IEEE Transactions on Antennas and Propagation* (1995-98) and an associate editor of the *AP-S Magazine*. His research interests are in the areas of computational EM, antenna design, propagation models, microwave processing of materials, biological effects of EM radiation, and the development of multimedia applications for education. His presently ongoing research contracts include "Propagation Models for Wireless Communication," funded by the Army Research Office; "Design of Low-Cost Phased Array Antennas," funded by the Army Research Lab and NSF; "Microwave Processing of Materials," funded by Corning, Inc.; and "The Conceptual Learning of Engineering" project funded by NSF.

Name: William R. Boulton
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Dr. Boulton has been the Olan Mills Professor of Strategic Management at Auburn University since 1990. He has extensive experience in Japan and Asia. He has worked with such companies as GTE International, Singer Corporation, and Matsushita Electric. Dr. Boulton completed his doctorate at the Harvard Business School in 1977. He has been a visiting professor or scholar at such institutions as Japan's Ministry of Finance's Institute for Fiscal and Financial Policy (1991), Keio University's Business School in Japan (1986, 1992 and 1993), the School for International Studies in Tokyo (1986, 1992 and 1993), Georgia Institute of Technology (1985), and Northeastern University (1976 and 1981). He was a director of the Japan-American Society of Alabama from 1995-1999.

Dr. Boulton also has consulted widely in such areas as management of innovation and technology strategy, competitive strategy, strategic planning systems, and boards of directors. He was the founding director of a high-technology firm in biotechnology and has conducted extensive research in the field of technology and innovation management. He has completed a number of projects on the pharmaceutical industry. His most recent research involves U.S. government sponsored research entitled "Electronic Manufacturing and Packaging in Japan" in 1995, "Electronics Manufacturing in the Pacific Rim" in 1997, and "Information Technologies in the Development Strategies of Asia" in 1999, and "Electronic Manufacturing Technologies in Hong Kong and China" in 2000.

Name: Yi-Tzoo (Y.T.) Chien
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Yi-Tzoo (Y.T.) Chien is a Senior Fellow with the International Technology Research Institute (ITRI), Inc. in Arlington, VA. Prior to this position, for some 20 years, he was with the National Science Foundation (NSF) as program and division director with various management responsibilities in computer science and information systems research. His work at NSF also included extensive cross-agency initiatives at national levels. For several years, he served as Chair of the Human-centered Systems Working Group for the Committee on Computing, Information, and Communications under the President's Council on Science and Technology, and as a member of its Technology Policy Working Group. For two years, he served as a member of the Advisory Council on Applications for the Internet2 consortium. In addition to his management experience at NSF, he also worked for two years as a senior scientist and group leader in Artificial Intelligence at the Naval Research Laboratory in Washington, D.C. His professional career also includes many years on the engineering faculty of the University of Connecticut, first as professor and later as Assistant Dean of Engineering for Computer Research. For the year of 1998-99, on leave from NSF, he was a Senior Research Fellow in the John F. Kennedy School of Government at Harvard University. There

he joined the Center for Science and International Affairs and participated in several research projects that focused on issues at the intersection of computer/network technology, Internet/telecommunications, and public policy. At present, besides his assignment at ITRI, Inc., he holds a visiting researcher's position with the Center for Research on Information Technology and Organizations (CRITO) at the University of California, Irvine, where he participates in research on the globalization of e-commerce.

Dr. Chien holds a Masters and Ph.D. degree, both in Electrical Engineering from Purdue University. He has authored or co-authored over 50 research papers in pattern recognition, computer vision, artificial intelligence, policy issues of the Internet, and three books: Fundamentals in Computing, John Wiley; Interactive Pattern Recognition, Marcel Dekker; and Knowledge-based Systems, IEEE Computer Society Press. Dr. Chien is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE).

Name: Wayne Stark
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Wayne Stark received the B.S. (with highest honors), M.S., and Ph.D. degrees in electrical engineering from the University of Illinois, Urbana in 1978, 1979, and 1982 respectively. Since September 1982 he has been a faculty member in the Department of Electrical Engineering and Computer Science at the University of Michigan, Ann Arbor where he is currently Professor. From 1984-1989 he was Editor for Communication Theory of the IEEE Transactions on Communication in the area of Spread-Spectrum Communications. He was involved in the planning and organization of the 1986 International Symposium on Information Theory, which was held in Ann Arbor, Michigan. He was selected by the National Science Foundation as a 1985 Presidential Young Investigator. His research interests are in the areas of coding and communication theory, especially for spread-spectrum and wireless communication networks as well as in integrated design of wireless networks. Dr. Stark is a member of Eta Kappa Nu, Phi Kappa Phi and Tau Beta Pi and a Fellow of the IEEE.

Name: Keith Warble
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Mr. Warble is manager of SATCOM Technologies Lab, a recent addition to Motorola Labs.

He is currently refocusing technical teams that have been keyed to Satellite Communications Systems toward applications in Terrestrial Wireless Access.

Keith's background of 40 years in aerospace electronics includes advanced space technology programs from Gemini and Apollo through ACTS, and Space Station, in addition to several government satellite systems. He was directly involved in the development and production of over 20,000 integrated circuits currently operating in space.

Name: Jack Winters
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Jack H. Winters received his B.S.E.E. degree from the University of Cincinnati, Cincinnati, OH, in 1977 and M.S. and Ph.D. degrees in Electrical Engineering from the Ohio State University, Columbus, in 1978 and 1981, respectively. Since 1981 he has been with AT&T Bell Laboratories and now AT&T Labs – Research, where he is head of the Wireless Systems Research Department. He has studied signal processing techniques for increasing the capacity and reducing signal distortion in fiber optic, mobile radio, and indoor radio systems and is currently studying adaptive arrays and equalization for indoor and mobile radio

Dr. Winters is a member of Sigma Xi and a Fellow of the IEEE.