MTT-SOCIETY AWARDS

2004 Application Award

JOHN W. BANDLER

The Microwave Application Award recognizes an individual or team for outstanding application of microwave theory and techniques. This year's recipient is John W. Bandler, whose citation reads **"For implementation of optimization technology, design with tolerance and yield-driven design to microwave devices, circuits and systems."**

JOHN W. BANDLER was born in Jerusalem, on November 9, 1941. He lived in Cyprus from 1945 to 1956, and in London, England, from 1956 to 1967. In 1967 he moved to Canada, where he lives with his wife Beth Budd. He has two daughters, Lydia and Zoe.

He studied at Imperial College and received the B.Sc.(Eng.), Ph.D. and D.Sc.(Eng.) degrees from the University of London in 1963, 1967 and 1976, respectively. He joined Mullard Research Laboratories in 1966. From 1967 to 1969 he was a Postdoctoral Fellow at the University of Manitoba. He joined McMaster University, Hamilton, Canada, in 1969. He has served as department chairman and faculty dean. He is currently Professor Emeritus.

John was President of Optimization Systems Associates Inc. (OSA), which he founded in 1983, until November 20, 1997, the date of acquisition by Hewlett-Packard Company (HP). OSA implemented a yield-driven CAD capability for Raytheon in 1985, followed by innovations in CAD for the Raytheon/Texas Instruments Joint Venture MIMIC Program. OSA introduced RoMPE in 1988, HarPE in 1989, OSA90 and OSA90/hope in 1991, Empipe in 1992, Empipe3D and EmpipeExpress in 1996. In 1996 OSA created *empath,* marketed by Sonnet Software, Inc. John is President of Bandler Corporation, which he founded in 1997.

John's contributions, through EEsof (Touchstone and Libra), Compact Software (SuperCompact and Microwave Harmonica), OSA and subsequently premier HP, Agilent and Ansoft products, set the standard for optimization technology in the microwave industry. Yield-driven design and design with tolerances is taken for granted following his contributions to SuperCompact in the late 80's. EEsof was forced to follow this initiative. EM optimization became a reality through his OSA/Empipe technology initiated in 1992. Ansoft followed the lead when HP acquired OSA.

John was Associate Editor of the IEEE Transactions on Microwave Theory and Techniques (1969-1974), member of the editorial board and guest editor of several special issues (1974, 1992, 1997, 2004). He served on the editorial boards or as guest editor of other journals, most recently Optimization and Engineering Special Issue on Surrogate Modelling and Space Mapping for Engineering Optimization (2001). He was a Chair of the MTT-1 Technical Committee on Computer-Aided Design.

John published more than 360 papers. He contributed to *Modern Filter Theory and Design,* Wiley-Interscience, 1973 and to *Analog Methods for Computer-aided Analysis and Diagnosis,* Marcel Dekker, Inc., 1988. IEEE Press and Artech House have reprinted many of his papers.

Al Wexler and Bill Getsinger encouraged John's initial work. Witold Kellermann and Shahrokh Daijavad were early OSA collaborators. Bob Pucel and Jim Rautio helped propel OSA's advance. Steve Chen, Radek Biernacki and Q.J. Zhang seminally contributed to OSA's impact. John's twenty-five years of collaboration with Kaj Madsen continues.

John became a Fellow of the IEEE in 1978, the Royal Society of Canada in 1987 and the Canadian Academy of Engineering in 2003. He received the Automatic Radio Frequency Techniques Group (ARFTG) Automated Measurements Career Award in 1994.

In 1977 John was invited and attended a dinner and a reception in Ottawa attended by Her Majesty the Queen and His Royal Highness the Duke of Edinburgh. The occasion was the Queen's Silver Jubilee and a tribute to young Canadians who had achieved excellence in the Arts and Sciences.

In 1995 he began painting, principally in acrylic, inspired by abstract, expressionist and surrealist works. He is currently completing the first draft of his first novel, set in Cyprus during the island's violent final years as a British Crown colony.