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Tadeusz Wysocki

University of Nebraska-Lincoln, wysocki@uow.edu.au

Salman Durrani

University of Nebraska-Lincoln, salman.durrani@anu.edu.au

Rodney A. Kennedy

University of Nebraska-Lincoln

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Prof. Dr. Marek E. Bialkowski (1951 – 2011)



It is our sad duty to report the untimely death of Prof. Dr. Marek E. Bialkowski, who passed away on Thursday, October 27, 2011 after a short unexpected illness caused by pneumonia. He was a remarkable researcher and a mentor and friend to many of us and he will be greatly missed.

Marek was born in Sochaczew, Poland, in 1951. He received the M.Eng.Sc. degree in applied mathematics and the Ph.D. degree in electrical engineering, both from the Warsaw University of Technology, Warsaw, Poland, in 1974 and 1979, respectively. He received the Doctor of Engineering (higher doctorate) degree in computer science and electrical engineering from the University of Queensland, Brisbane, Australia, in 2000. He was a Chair Professor in the School of Information Technology and Electrical Engineering at the University of Queensland.

He held teaching and research appointments at universities in Poland, Ireland, Australia, UK, Canada, Singapore, Hong Kong, and Switzerland. In 1977, he joined the Institute of Radio Electronics, Warsaw University of Technology and, in 1979, became an Assistant Professor. In 1981, he was awarded a Postdoctoral Research Fellowship by the Irish Department of Education and spent one year at the University College Dublin, Dublin, Ireland, carrying out research in the area of microwave circuits. In 1982, he won a Postdoctoral Research Fellowship from the University of Queensland, where he worked on electromagnetic models for waveguide diode mounts. In 1984, he joined the Department of Electrical and Electronic Engineering, James Cook University, Townsville, Australia, as a Lecturer and then Senior Lecturer in the field of communications. In 1988, he was a Visiting Senior Lecturer in the Department of Electronics and Computer Science, University of Southampton, U.K. In 1989, he joined the Department of Computer Science and Electrical Engineering at the University of Queensland, Brisbane, Australia. In 1994, he held an appointment as a Visiting Professor in the University of Victoria, Canada. In 1998-99, he held an appointment as a Visiting Professor at Nanyang Technological University, Singapore. In 2001, he was a Visiting Professor with the City University of Hong Kong. In 2003, he was a Visiting Professor with the National University of Singapore and with the Swiss Federal Institute of Technology (ETH) in Zurich. He returned to the National University of Singapore as a Visiting Professor in 2008.

His research interests included industrial and medical applications of microwaves, multiple-input multiple-output (MIMO) systems and ultra wideband antennas for wireless communications, phased array antennas for mobile cellular and satellite communications, low profile antennas for reception of satellite broadcast TV programs, electromagnetic modelling of wave guiding and radiating structures, and conventional and space-level power combiners for solid-state oscillators and amplifiers. His work in these areas led to the development of theories and working prototypes of single and dual six-port network analysers, microwave liquid level gauging systems, full EM and approximate scattering models for MIMO systems, working prototypes of wideband smart antennas, phased and switched beam array antennas for Mobilesat, radial line slot array antennas for receiving DBS TV programs, reflection and transmission type space-level power combiners. The results of his work appeared in over 600 refereed technical papers, several book chapters, one book, one patent, and several research reports.

He was a co-recipient of the Best Paper in Mathematical Methods in Electrical Engineering awarded by the Polish Association of Theoretical and Applied Electrotechniques (PTETiS) in 1976. He was awarded the 2000

Harold A. Wheeler Applications Prize Honourable Mention for a paper published in the IEEE Transactions on Antennas and Propagation in 1999. Also he was a co-recipient of best paper/presentation awards at various international conferences.

In 2002, he was elected an IEEE Fellow with the following citation: for contributions to the modelling, design, and testing of microwave guiding and radiating structures.

Marek's other interests included travel, classical music and history. He is survived by his wife and four children.

Tadeusz A. Wysocki, Salman Durrani and Rodney A. Kennedy