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**Title: ROUTES TO SUCCESS IN ACADEMIC RESEARCH: A PERSONAL PERSPECTIVE**

**Date:** Wednesday, Oct. 3, 2012

**Time:** 2:30pm – 4pm

**Place:** Room UC282, University Center, Carleton University, Ottawa, K1S5B6

**Speaker:**



**Prof. John Bandler**

Life Fellow, IEEE, Fellow, Royal Society of Canada, Fellow,  
Canadian Academy of Engineering

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RSVP: Prof. Ram Achar, Email: [achar@doe.carleton.ca](mailto:achar@doe.carleton.ca) by Oct. 2.

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**Abstract:** When you hear the words MIT, Berkeley, Harvard, Cambridge or Oxford, what associations spring to mind: innovation, privilege, influence, envy, pride, or the Nobel Prize winners on the faculty?

All communities are interested in the success of their local academic institutions. Concerns extend far beyond the walls of the institutions: like the stature of the faculty, the quality of the students, the value of the education, the impact of the institution's research, and the ability of the institution to attract leading faculty, good students, and sufficient research grants.

What promotes successful research? Is it available facilities, imagination, opportunity, leadership, IQ, charm, packaging, or good luck? How can you measure success? Is it by the number of enrolled students, the size of the team, the number of publications, the volume of citations, the size of the budget, the awards received, the number of fellowships gained in learned societies?

It may seem surprising how much of one's recognition in a field of endeavor is attributable to the subjective perception of others. So, in addition to the specifics of advanced research in academia, this talk includes issues of impressions and subtext that are essential to human behavior and discourse. Researchers must learn to navigate the minefield of ethics, over-exposure, secrets, confidentiality agreements, contracts, collegial envy, and more.

Beware of "experts" who claim to see no future in your proposed research. And, rather than taking that well-trodden path and being instantly understood and accepted, you should follow your pioneering instinct even if you find yourself initially ridiculed and rejected.

In suggesting ways of inspiring and managing successful research, I draw on personal successes and failures in both my technical and non-technical domains.

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**Bio:** John W. Bandler studied at Imperial College of Science and Technology and received the B.Sc.(Eng.), Ph.D., and D.Sc.(Eng.) degrees from the University of London, England, in 1963, 1967, and 1976, respectively.

He joined McMaster University, Canada, in 1969. He is now a Professor Emeritus. He was President of Optimization Systems Associates Inc. (OSA), which he founded in 1983, until 1997, when OSA was acquired by Hewlett-Packard Company.

OSA implemented a first-generation yield-driven microwave CAD capability for Raytheon in 1985 and subsequently engineered and marketed several state-of-the-art software products.

Dr. Bandler is President of Bandler Corporation, which he founded in 1997.

He has published more than 470 technical papers, including contributions to books.

He became a Fellow of the IEEE in 1978 (a Life Fellow since 2006). He is a Fellow of several other societies, including the Canadian Academy of Engineering and the Royal Society of Canada (since 1987).

He received the Automatic Radio Frequency Techniques Group (ARFTG) Automated Measurements Career Award in 1994. In 2004 he received the IEEE MTT-S Microwave Application Award "For application of optimization technology, design with tolerances and yield-driven design to microwave devices, circuits and systems."

John introduced space mapping in 1994. From automotive crashworthiness to magnetic systems, his concept has been adopted by design portfolios across the entire spectrum of engineering, making possible the high-fidelity design of devices and systems at a cost of a few high-fidelity simulations. Space mapping explains the mysterious "feel" that engineers have historically claimed as special to their expertise.

In 2012 he received the IEEE Canada A.G.L. McNaughton Gold Medal, which honors "outstanding Canadian engineers recognized for their important contributions to the engineering profession." Also in 2012, a special session at the IEEE MTT-S International Microwave Symposium paid tribute to his forty-five years of pioneering contributions.

In 2012, at the IEEE MTT-S International Microwave Symposium, John delivered a rump session on "Human aspects of communication and persuasion: first impressions and subtext." A video is available on the internet through IEEE.tv.

Active in artistic endeavors, John has written a novel, a screenplay, and several stage plays, three of which have been performed, one of which he directed himself in 2012.