



IEEE Systems Council Chapter presents IEEE Distinguished
Lecture Series on

The Things We Ought to Know About MIMO: Most Important - It is a Game Changer

Dr. Bernard Sklar

Date: May 1, 2018 (Tuesday)

Time: 4:00 – 6:30 PM

Location: VEC 326, CSULB



Abstract:

In 1948 Shannon taught us about the fundamental tools for communication systems, namely, power and bandwidth (BW). It didn't take us long to realize that BW is the more valuable of the two. We have to buy it or lease it. It is finite and scarce. While other novel techniques (spread spectrum and OFDM) teach us how to share our resources, with MIMO we can do more. We can effectively create new resources. One can never literally create new spectrum, but because MIMO systems can yield such incredible increases in capacity, we can think of it as doing just that. Because MIMO represents such a major technological innovation, one can predict that some form of MIMO will always be included in future specifications of wireless systems.

About Speaker: Dr. Bernard Sklar has over 60 years of technical experience at: Republic Aviation, Hughes Aircraft, Litton Industries, and The Aerospace Corp. At Aerospace, he helped develop the MILSTAR satellite system, and was the principal architect for EHF Satellite Data Link Standards. Currently, he is Head of Advanced Systems at Communications Engineering Services, a consulting company he founded in 1984. He has taught engineering courses at several universities, including the UCLA and the University of Southern California, and has presented numerous training programs throughout the world. Dr. Sklar has published and presented scores of technical papers. He is the recipient of the 1984 Prize Paper Award from the IEEE Communications Society for his tutorial series on digital communications, and he is the author of the book, *Digital Communications: Fundamentals and Applications*, 2nd Edition, Prentice-Hall, 2001. He is past Chair of the Los Angeles Council IEEE Education Committee. He holds a Ph.D. degree in engineering from the University of California, Los Angeles.

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