

MSEC Presentations by Dr. John C. Carrano, CEO, Paratus Diagnostics.

Seminar #1 *Leading Successful Product Innovation*

This presentation will address those key aspects of leadership and management necessary for development of innovative products in a cost-effective and timely manner. We will first discuss the lecturer's concept of creating a culture of "disciplined creativity" followed by a discussion of leadership lessons from a thirty-five year long career. Also covered will be a summary of the key principles of product development special emphasis on "spiral development" and "design transfer," the two most difficult aspects of getting a concept off the white board and on to the production line.

Seminar #2 *Applying "Cost Benefit Analysis" to Manufacturing*

This presentation begins with a cursory explanation of Bayesian statistics, and its application to the commonplace "dichotomous test." Using this introductory framework, the remainder of the talk will demonstrate how one can use the mathematics of "cost benefit analysis" to improve a manufacturing process; in other words, make it more reliable and lower cost to the company.

Dr. John C. Carrano is the President and CEO of Paratus Diagnostics, a firm he founded that specializes in medical devices for point-of-care diagnostics. Dr. Carrano was previously Vice President, Research & Development at Luminex Corporation (NASDAQ: LMNX). Prior to Luminex, John was as a program manager at DARPA where he led several major Defense Department programs related to bio-sensing. Dr. Carrano was also on the faculty of the Department of Electrical Engineering and Computer Science at the United States Military Academy, and served as the Department Executive Officer. He retired from in the Army in 2005 with over 24 years of decorated service including a variety of command and staff positions worldwide. Dr. Carrano received his B.S. from West Point and his Ph.D. in Electrical Engineering from the University of Texas at Austin. He has several patents and over 60 publications and is a Fellow of SPIE. In 2012 he was appointed by Secretary Napolitano to the Department of Homeland Security Science Advisory Board. You can find his LinkedIn page [here](#).