BIOMEDICAL ENGINEERING SEMINAR SERIES:


Wednesday, February 15
1034 Emerging Technologies Building
9:10 a.m. to 10:00 a.m.

In the Information Age, reliance on cyberspace pervades almost every aspect of life including healthcare. Private citizens have utilized digital systems – including the internet – to communicate with others around the globe, build social networks and share information. Businesses have taken advantage of online and e-commerce to expand their client base, manage supply chains and communicate with customers. The United States Government relies on digital systems to collect taxes, manage critical infrastructure, ensure national security and interact with constituents. As one of the most connected countries on earth, the United States has enormously benefited from the transformations brought about by the Information Age. However, the diverse benefits of the Information Age also come with enormous risks. The Internet and other digital infrastructure are lightly regulated and unsecure. As a “network of networks” where all types of secure government, open public and restricted private networks are located, security vulnerabilities in one internet network can be used to exploit vulnerabilities in another. A growing group of state and non-state actors, including disgruntled employees, criminals, terrorists and foreign intelligence agencies, have exploited these vulnerabilities to maliciously target U.S. citizens, commerce and government. For over 40 years researchers have written about applying computer technologies to improve daily medical care, and in the past decade, the goal of using genomic data to truly personalize care has been woven into those concepts. Since 2004, the US has focused on creating a complete personal health record for each citizen and great strides have been made in developing the technical standards to allow near-real-time health data acquisition either directly from medical devices, health practitioners, caregivers, and/or patients themselves.

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Dr. Luis Kun is a Distinguished Professor Emeritus of National Security Affairs (2011-15) at the W. Perry Center for Hemispheric Defense Studies and was the Senior Research Professor of Homeland Security at the i-College (2003-11) also at the National Defense University. He is Editor-in-Chief of Springer’s Journal of Health and Technology and the Chairman of the Global Citizen Safety and Security WG for the International Federation of Medical and Biological Engineering. He graduated from the Merchant Marine Academy in Uruguay and holds BSEE, MSEE and Ph.D. degrees in Biomedical Engineering all from the University of California, Los Angeles.