

The Path of an Interdisciplinary Computer System Engineer

George T. Ligler, D.Phil.

Proprietor, GTL Associates and

Dean's Eminent Professor of the Practice of Biomedical Engineering

UNC Chapel Hill/NC State Joint Department of Biomedical Engineering

Member, National Academy of Engineering

Faculty hosts: Nicole Hashemi and Reza Montazami

Seminar on September 11, 2018 at 11:00am in 2004 Black Engr. Bldg.

Abstract

Interdisciplinary computer system engineering in practice must focus on potential internal/external stakeholders and the problem to be solved as much as the multidisciplinary technology to be applied and the number of tradeoff spaces to be encountered. Dr. Ligler will discuss his entry into interdisciplinary computer system engineering and the conception, development, and operational implementation of a major aviation system, the Automatic Dependent Surveillance—Broadcast (ADS-B) system, as a vehicle to discuss what an interdisciplinary computer system engineer does. He will summarize the roles which he has played and continues to play in ADS-B System development and operational implementation. He will then discuss several current interdisciplinary engineering initiatives in both academia and the National Academy of Engineering.

George Ligler received the M.Sc. and D.Phil. degrees in computation from Oxford University in 1973 and 1975, respectively, where his studies were funded by a Rhodes Scholarship. He is both proprietor of GTL Associates, a computer systems engineering consultancy he formed in 1988 and, since August 2018, the Dean's Eminent Professor of the Practice of Biomedical Engineering in the UNC Chapel Hill/NC State Joint Department of Biomedical Engineering (BME). In his new half-time role in the Joint Department, he will assist BME through mentoring faculty and students; serving as a catalyst to initiate collaborative interactions within BME and between the department and industry; providing guidance in research, entrepreneurship, intellectual property, project management, and contract negotiation; and serving as an international spokesperson for the department. The recipient of a number of national awards, he has been recognized for leadership in the areas of systems specification, integration, and engineering. At GTL Associates, he has provided consulting services in a variety of application areas to more than 40 clients in the United States, Europe, and Asia. Prior to forming GTL Associates, he was a project/research manager at Texas Instruments, director of engineering at the Burroughs Special Systems Division, president of Aydin Controls Division (computer graphics), and a division and group vice president at Computer Sciences Corporation. He has been on the BME Industrial Advisory Board since 2015 and has served on six committees or panels of the National Academies of Sciences, Engineering, and Medicine.

www.me.iastate.edu

This seminar counts towards the ME 600 seminar requirement for Mechanical Engineering graduate students.