Biomedical Engineering Seminar

Virtual Bioinstrumentation

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5-6pm

Bronwell Building, Room 224

Abstract:

Executive dashboards and virtual instrumentation allows organizations to effectively harness the power of the PC to access, analyze and share information throughout the enterprise. The case studies discussed in this paper illustrate how various institutions have conceived and developed “user-defined” solutions to meet specific requirements within the healthcare and insurance industries. These dashboards support general operations, help hospitals manage fluctuating patient census and bed availability, and enable insurance companies to identify best practice patterns, accurately price products, and increase market share. Decision makers can easily move from big-picture analyses to transaction-level details while at the same time, safely share this information throughout the enterprise to derive knowledge and make timely, data-driven decisions. Collectively, these integrated applications directly benefit healthcare providers, payers, and most importantly, patients.

This seminar will demonstrate the many capabilities of Virtual Instrumentation (VI) and its ability to interface with traditional instruments, medical devices and disparate information systems. In addition, this session will also demonstrate how VI can effectively leverage other technologies including the Internet, machine vision, Active X components (such as interactive agents, etc.) and databases. Specific examples will highlight connectivity to patient information systems, Admission-Discharge-Transfer (ADT) Systems, Computerized Maintenance and Management Systems (CMMS) and business intelligence and decision support applications.

BIOGRAPHICAL SKETCH: Eric Rosow received his B.S. degree in Mechanical Engineering from Trinity College (Hartford, CT) and M.S. degree in Biomedical Engineering from the Hartford Graduate Center/Rensselaer Polytechnic Institute (Hartford, CT). Mr. Rosow is the Director of Biomedical Engineering at Hartford Hospital in Hartford, Connecticut. He has over 16 years experience in biomedical engineering and life science applications of virtual instrumentation. Mr. Rosow is also a co-founder of Premise Development Corporation, a firm that specializes in virtual instrumentation and the design and development of custom software applications for the healthcare and biomedical industry. Mr. Rosow is also a co-author of *Virtual BioInstrumentation – Biomedical, Clinical and Healthcare Applications in LabVIEW™.*

Premise was selected to develop the product BioBench™ for National Instruments. BioBench is a software application designed for physiological data acquisition and analysis. It is a "turnkey" package that requires no programming by the user. He has authored over 45 professional publications and holds 5 U.S. Patents. Mr. Rosow is active in a number of professional societies including: the Institute of Electrical and Electronics Engineers, Engineering in Medicine and Biology Society, the Health Information Systems Society, the American College of Clinical Engineering, the Association for the Advancement of Medical Instrumentation and the American College of Healthcare Executives.