CENTER FOR
HEALTHCARE ENGINEERING & PATIENT SAFETY
UNIVERSITY OF MICHIGAN

PROVIDING BETTER HEALTHCARE THROUGH SYSTEMS ENGINEERING

Data Analytics for Public Health Systems

Nicoleta Serban, Ph.D.

Monday 12/6 at 4:30 PM ET

All seminars will be held in-person in IOE 1680 as well as virtually on Zoom. For the Zoom link and password, RSVP here.

Data collected within the public health system can be used to advance personalized medicine, target interventions, and evaluate guidelines and practices among many others. It can provide opportunities to set up "policy" labs where policies and interventions can be tested without their direct deployment to the public. In this presentation, I will overview data analytics in healthcare within the paradigm of data science, integrating all data processes from data acquisition and processing to data translation, to data modeling and finally decision making. The overarching message is that data science is at the core of informed decisions, interventions, and ultimately at the core of system's transformations.

Nicoleta Serban is Virginia C. and Joseph C. Mello Professor in the H. Milton Stewart School of Industrial and Systems Engineering at the Georgia Institute of Technology. Her research record is quite diverse, from mathematical statistics to modeling to data analysis to statistical learning, with recent contributions on drawing principled inferences on healthcare delivery and health policy. She has also been involved in broad impact research activities; the most noteworthy is the leadership of the Health Analytics initiative (http://www.healthanalytics.gatech.edu). This is a collaborative effort anchored in partnership with a varied network of clinicians, healthcare providers, and public health entities. To date, she has published more than 60 journal articles, and a collaborative (with Dr. William B. Rouse) book titled Understanding and Managing the Complexity of Healthcare published by MIT Press and single-authored book titled Healthcare System Access: Measurement, Inference and Intervention published by Wiley. She is the editor for physical sciences, engineering, and the environment for the Annals of Applied Statistics Journal. She has reviewed for multiple funding agencies and she has served in multiple workshops and meetings organized by the National Academies.

This seminar series is presented by the U-M Center for Healthcare Engineering and Patient Safety (CHEPS): Our mission is to improve the safety and quality of healthcare delivery through a multi-disciplinary, systems-engineering approach. For the Zoom link and password and to be added to the weekly e-mail for the series, please RSVP. For additional questions, contact CHEPSseminar@umich.edu. Photographs and video taken at this event may be used to promote CHEPS, College of Engineering, and the University.