

Department of Electrical and Computer Engineering

***Distinguished Lecture Series  
2007-2008***

**Wednesday, March 12, 2008  
11:00 a.m. ~ CoRE Building Lecture Hall**

**IMPORTANT FUTURE RESEARCH AREAS FOR INFORMATION VISUALIZATION**

**Dr. Georges Grinstein**  
Professor of Computer Science  
Director, Bioinformatics Program of the  
Institute for Visualization and Perception Research and  
Center for Biomolecular and Medical Informatics  
University of Massachusetts

***Abstract***

This talk will review the state of information visualization with a brief history and will focus on five areas and key topics that are extremely important for this field. These five areas can provide for rapid new growth and they are: (1) Measuring Information Visualization (information, accuracy, uncertainty, insight); (2) High-dimensional Visualization (hundreds and thousands of variables); (3) Real Time Massive Data Set Visualization (sensors, networks); (4) Interactive Collaborative Information Visualization (Web 4.0); (5) Modeling Data Exploration (where is the user going?). A number of key problems, hints to some solutions, possible impact and future scenarios will be discussed.

**BIOGRAPHY**

Georges Grinstein is Professor of Computer Science at the University of Massachusetts-Lowell, and is the Director of its Bioinformatics Program of the Institute for Visualization and Perception Research and of the Center for Biomolecular and Medical Informatics. His research interests are broad and include computer graphics, visualization, sonification, data mining, virtual environments, and user interfaces with the emphasis on the modeling, visualization, and analysis of complex information systems, most often biomedical in nature.

Dr. Grinstein received his Ph.D. in Mathematics from the University of Rochester. He has over 30 years in academia with extensive private consulting, over 100 research grants, products in use nationally and internationally, several patents, numerous publications in journals and conferences. He has been the organizer or chair of national and international conferences, symposia and workshops in Computer Graphics, in Visualization, and in Data Mining (co-chair IEEE Visualization Conferences, co-chair SPIE Visual Data and Exploration and Analysis Conferences, co-chair Information Visualization in Biomedical Informatics Symposia, Visual Data Mining and Analytics Symposia, co-chair IEEE Workshops on the Integration of Databases and Visualization, co-chair IEEE and AAAI Workshops on the Integration of Data Mining and Visualization, co-chair ACM workshop on the Psychological and Cognitive Issues in the Visualization of Data). Dr. Grinstein is on the editorial boards of several journals in Computer Graphics and Data Mining, and he has been a member of ANSI and ISO, a NATO Expert, and a technology consultant for various government agencies.

***This lecture is part of the Department of Electrical and Computer Engineering Distinguished Lecture Series. Information about upcoming lectures can be seen at <http://www.ece.rutgers.edu/lecture/>.***

Refreshments will be served at 10:30 AM