University at Buffalo
The State University of New York

Department of Computer Science and Engineering

Presents

.

Professor Dimitris Metaxas, Rutgers University

Stochastic, Hybrid Deformable Modeling Methods for Segmentation, Tracking and Classification

Recent advances in deformable models have lead to new classes of methods that borrow the best features form level sets as well as traditional parametric deformable models. In this talk I will first present a new class of such models termed Metamorphs whose formulation integrates shape, intensity and texture by borrowing ideas from level sets and traditional parametric deformable models. Further extensions to these models include the inclusion of shape and texture priors. These new models can be used in medical segmentation and registration where organ boundaries are fuzzy and with no assumptions on the noise distribution. In the second part of the talk I will present novel classification methods for cardiac analysis, including a recent validation study of ultrasound strains using MRI tagged data.

Bio:
Dr. Dimitris Metaxas is a Professor II (Distinguished) in the Division of Computer and Information Sciences and Professor II in the Department of Biomedical Engineering at Rutgers University since July 2007. From September 1992 to January 2002 he was a Professor of CS at the University of Pennsylvania. He is currently directing the Center for Computational Biomedicine, Imaging and Modeling (CBIM). Dr. Metaxas has been conducting research towards the development of formal methods upon which both computer vision, computer graphics and medical imaging can advance synergistically. In computer vision, he works on the simultaneous segmentation and fitting of complex objects, shape representation, deterministic and statistical object tracking, learning and ASL, and human activity recognition. Dr. Metaxas has published over 300 research articles in these areas and has graduated 24 PhD students. His research has been funded by NSF, NIH, ONR, AFOSR and the ARO. He is on the Editorial Board of Medical Imaging, as Associate Editor of GMOD, and CAD. Dr. Metaxas received several best paper awards for his work on in the above areas. He was awarded a Fulbright Fellowship in 1986, is a recipient of an NSF Research Initiation and Career awards, an ONR YIP, and is a Fellow of the American Institute of Medical and Biological Engineers, ACM and IEEE. He was also the Program Chair of ICCV 2007 and the General Chair of MICCAI 2008.

Thursday, October 16, 2008
3:30 - 4:30 PM

Student Union 330 - University at Buffalo – North Campus

This talk is free and open to the public. Refreshments for attendees after the talk in 224 Bell Hall

For more information, please email **cse-dept@cse.buffalo.edu** or contact (716) 645-3180