



# UMass Lowell Computer Science Colloquium Announcement

**Speaker:** Amr Elbasiony, CS Dept, UML  
**Date & Time:** Wednesday, April 18, 2007, 3:00pm--4:00pm  
**Place:** Olsen 311, Refreshments are served at 2:40pm

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## Tissue Characterization

Tissue characterization is the extraction and presentation of diagnostic information obtained from medical image data to improve classification performance. The motivation for characterizing tissues is the acquisition of quantitative information about the body that ultimately improves patient outcome. Many useful tissue characterization systems have been developed, and current and possible applications are exciting. However, major challenges still remain, such as robustness to variations in image acquisition or patient anatomy and generalization of systems to new and more difficult problems. Tissue characterization has been an attractive area for the application of advanced classification techniques. Most general classification methods have been applied in various contexts such as object recognition, registration, segmentation, and feature extraction, resulting in further advances to answer the demands and requirements of the clinical application domain. In this presentation, we introduce some of the most common classification methods that have found application in tissue characterization. We present the essential fundamental principles of these techniques and, whenever possible, illustrate their application.

### *Bio:*

Amr Elbasiony is a graduate student in the CS Dept. He is working with Prof. Haim Levkowitz.