

*University of Notre Dame*  
*Department of Computer Science &  
Engineering*

Presents a

# SEMINAR

**Dr. Larry Holder**  
**Computer Science & Engineering**  
**University of Texas-Arlington**

## **Graph-based Relational Learning**

Many domains, from biology to sociology, have emphasized the need to learn patterns in the relations between entities, in addition to an entity's attributes. One approach to the relational learning problem takes advantage of the natural representation of relational information as a graph, or network of nodes and links. This talk presents a general approach to graph-based relational learning based on information compression that can be used for a variety of tasks, including pattern discovery,

clustering, supervised learning and graph grammar inference. Results from several domains show the effectiveness of the approach.

**Bio:**

Dr. Larry Holder is a professor in the Department of Computer Science and Engineering at the University of Texas at Arlington. He received his Ph.D. degree in Computer Science from the University of Illinois at Urbana-Champaign in 1991. His work in graph-based relational learning has spanned over fifteen years and has resulted in numerous publications and funding from NASA, NSF, DHS and DARPA. Dr. Holder's main research interests include artificial intelligence, machine learning, data mining, and graph theory.

**Tuesday, November 8, 2005**

**3:30 p.m.**

**119 DeBartolo**