



University of  
Central Arkansas™

## UCA DEPARTMENT OF MATHEMATICS SEMINAR

**Speaker: Dr. Bob Fithen**  
**Associate Professor of Engineering**  
**Arkansas Tech University**

**Title: Using Statistical Machine Learning for  
Decision Making?**

**Date: Wednesday, December 2, 2015**

**Time: 2:00 p.m.**

**Place: MCS 220**

### **ABSTRACT:**

Common logical methods of making decisions are often instinctively imbedded in our thought processes. These thought processes are emphasized through use of a computer 'if' statement and/or a 'bin size' on a one or two dimensional histogram plot. In this presentation, a simple look at these standard thought processes will be examined. When necessary, the use of machine learning becomes a powerful tool to look at our common everyday decisions in a different way. This is particularly true when sufficient past data is available. A quick description of two methods will be given as well as case studies which give rise to the concept of bin shape, size, as well as bin existence.