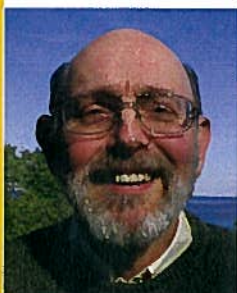


2009-2010 Graduate Seminar Series

The Department of Mechanical Engineering – Engineering Mechanics

Proudly Presents

**Mr. Dave Windstein, President
Twin Pines Solutions, LLC**



BME - University of Detroit –Mercy

MSME – University of Michigan – Dearborn

Registered Professional Engineer in the States of Michigan and Indiana

Over 44 years in design, design analysis, reliability, testing and education. During this time Mr. Windstein has spent time at Ford Motor Company, Cummins Engine Company, Michigan Tech, Outboard, Marine Corporation, and Harley Davidson.

Areas of interest have included experimental stress analysis, photoelasticity, probabilistic design, reliability and warranty analysis. Mr. Windstein has developed photoelastic and modeling laboratories at 2 different companies, designed numerous specialized transducers, developed and championed statistical approaches to design, test, and warranty analysis at Cummins, OMC and Harley. In addition to industrial work Mr. Windstein spent 5 years teaching Design and Engineering Mechanics in the ME-EM Department here at Michigan Tech in the 1980's. Since retiring from Harley-Davidson in 2007 he has been involved in consulting and industrial teaching of engineering statistics, reliability and design processes as the President of Twin Pines Solutions, LLC.

Thursday, Oct. 22, 2009

3:00 – 4:00 p.m.

Room 112, ME-EM Bldg.

Some Random Thoughts on the Role of Statistics in Product Design

With the continuing emphasis smaller, lighter, more efficient , higher reliability and most importantly less costly designs, the role of statistics will have to take on a much more integral and proactive part of the design process. Traditional reliability, when addressed, is basically a reactive quantification of the design. Moving forward, design engineers will have to integrate statistical approaches to all phases of the design process. This presentation will look at how we can use statistics from the initial concept phase through the design, validation, production and finally to understanding the actual field response. Specifically we'll look at some traditional statistics as the Normal distribution, Designed Experiments, and some nontraditional statistical techniques using the Weibull distribution and Recurrent Data analysis.