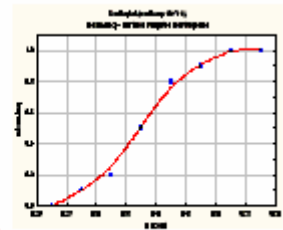


Statistics



Research (StaR) Colloquium

Seminar

Dept of Mathematics & Statistics

King Fahd University of Petroleum and Minerals

<i>Presenter</i>	Dr. Hassen Muttalak & Mr. Muazu AbuJiya Dept of Mathematics & Statistics, KFUPM
<i>Title</i>	Monitoring the Process Mean and Variance using Ranked Set Sampling and Its Modifications
<i>Topic & (Level)</i>	Statistical Process Control & Sampling (Quality Control, Methodical, Applications)
<i>Audience</i>	All KFUPM community are cordially Invited
<i>Date</i>	Tuesday, May 22, 2007
<i>Time</i>	1:00 PM
<i>Location</i>	Building 5, Smart Classroom # 203

Abstract

This paper presents the development of control charts for monitoring the mean and variance of a process using Ranked Set Sampling (RSS) and some of its modifications instead of the traditional Simple Random Sampling (SRS). The mean chart and range (R) chart are evaluated. Using the Average Run Length (ARL) performance, a comparison is made between the new charts and those based on SRS when the underlying distribution is normal. It is shown that the new charts are more effective in detecting changes in process mean and variance as compared to SRS.

Tea and Coffee will be served