

4. INDUSTRIAL ENGINEERING OVERVIEW

Topics:

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Objectives:

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4.1 Introduction

4.2 Examples

4.3 Summary

4.4 References/Bibliography

4.5 Problems

- F.E. Chapter 10 - Systems of Forces - Problems 1-23
- F.E. Chapter 11 - Trusses - Problems 1-10
- F.E. Chapter 12 - Pulleys, Cables, and Friction - Problems 1-12
- F.E. Chapter 13 - Centroids and Moments of Inertia - Problems 1-18
- F.E. Chapter 18 - Stress and Strain - Problems 1-18
- F.E. Chapter 19 - Thermal, Hoop and Torsional Stress - Problems 1-18
- F.E. Chapter 20 - Beams - Problems 1-15
- F.E. Chapter 21 - Columns - Problems 1-10
- F.E. Chapter 36 - Crystallography and Atomic Bonding - Problems 1-8
- F.E. Chapter 37 - Material Testing - Problems 1-11
- F.E. Chapter 38 - Metallurgy - Problems 1-18

1. The data set below was obtained over a two week period for a 1.000" shaft with a tolerance of ± 0.010 ". Write a program to automatically update the X-bar, UCL/LCL values given new values. When a new set of values is entered the program should check to see if the process is in control. .

Date	Samples			
Nov., 1, 1994	1.0034"	0.9999"	0.9923"	1.0093"
Nov., 2, 1994	0.9997"	1.0025"	0.9993"	0.9938"
Nov., 3, 1994	1.0001"	1.0009"	0.9997"	1.0079"
Nov., 4, 1994	1.0064"	0.9934"	1.0034"	1.0064"
Nov., 5, 1994	0.9982"	0.9987"	0.9990"	0.9957"
Nov., 6, 1994	0.9946"	1.0101"	1.0000"	0.9974"
Nov., 7, 1994	1.0033"	1.0011"	1.0031"	0.9935"
Nov., 8, 1994	1.0086"	0.9945"	1.0045"	1.0034"
Nov., 9, 1994	0.9997"	0.9969"	1.0067"	0.9972"
Nov., 10, 1994	0.9912"	1.0011"	0.9998"	0.9986"
Nov., 11, 1994	1.0013"	1.0031"	0.9992"	1.0054"
Nov., 12, 1994	1.0027"	1.0000"	0.9976"	1.0038"
Nov., 13, 1994	1.0002"	1.0002"	0.9943"	1.0001"
Nov., 14, 1994	0.9956"	1.0001"	0.9965"	0.9973"