Process Monitoring

by
Mohd Yusri Mohd Yunus
yusri@ump.edu.my

Chapter 1
Introduction To Process Monitoring

Chapter Description

- Aims
  - Define the conceptual background of process monitoring.
- Expected Outcomes
  - Critically discuss the essentials and benefits of applying process monitoring system for ensuring smooth as well as safe industrial operability.
- Other related Information

Subtopics

1.5 PM vs Process Control

1.6 PM vs Process Improvement

1.5 PM vs Process Control

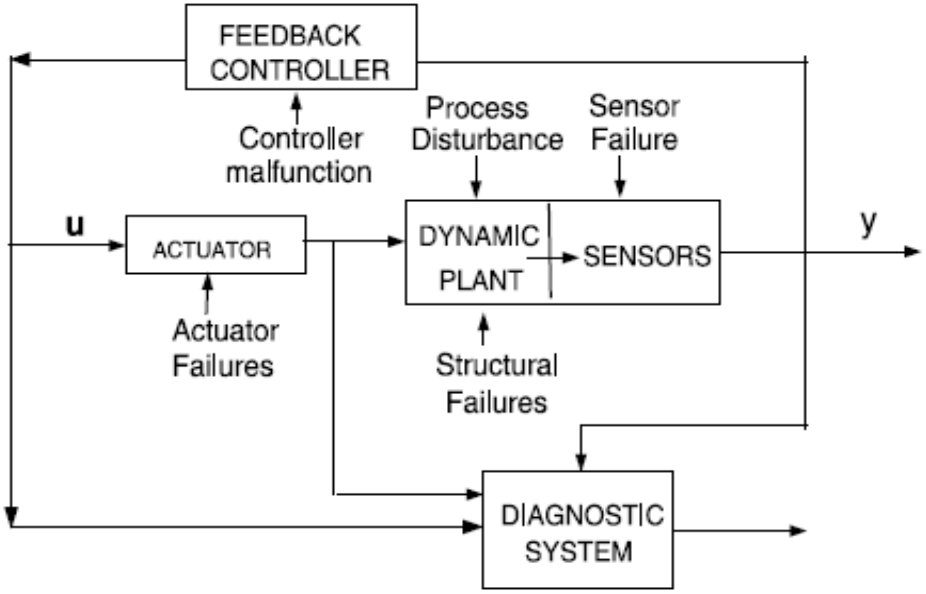
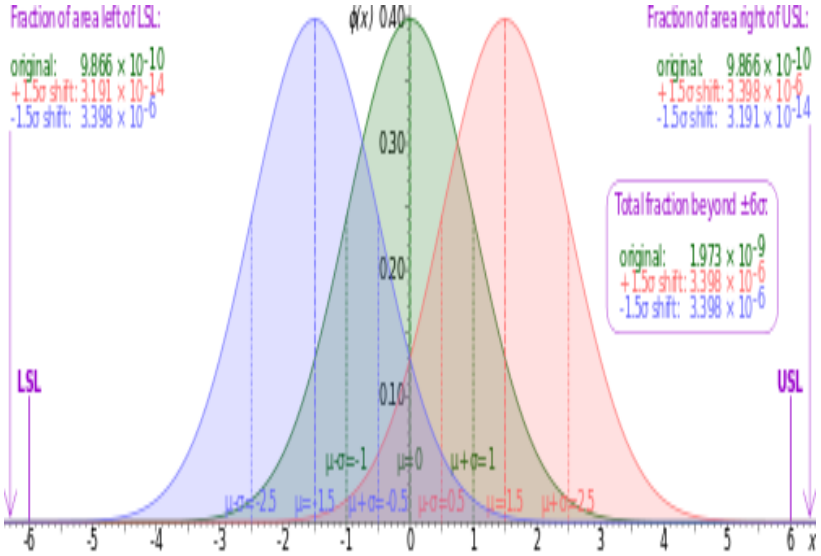


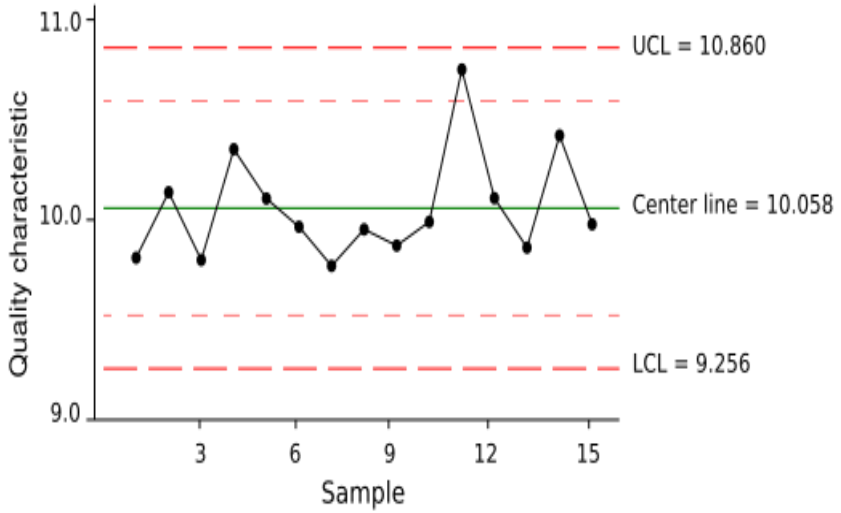
Fig. 1. A general diagnostic framework.

Source: Venkatasubramanian, et al., 2003. *A Review of process Fault Detection and Diagnosis. Part I: Quantitative model-based methods.* Computers and Chemical Engineering (27) 293-311. Elsevier.

1.6 PM vs Process Improvement



Source:
https://commons.wikimedia.org/wiki/File:6_Sigma_Normal_distribution.svg, cmglee



Source:
https://commons.wikimedia.org/wiki/File:ControlChart.svg

Process Monitoring

References

- **Mason, R.L., and Young, J.C., (2002). Multivariate Statistical Process Control with Industrial Applications. USA: ASA-SIAM.**

- **MacGregor, J. F., and Kourti, T. (1995). Statistical Process Control of Multivariate Processes. Control Engineering Practice, 3, 403 – 414.**

Authors Information

Credit to the authors: