

Process Monitoring

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Process Monitoring

Chapter 3b

Multivariate Statistical Process Monitoring



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Chapter Description

- Aims
 - Analyze the process performance based on MSPM approach.
- Expected Outcomes
 - Develop a fault detection mechanism as well as perform investigation based on a specified case study by using a specialized software.
- Other related Information



Exercises

Exercise 1: From Table 1,

- a. Plot (scatter plot) the original standardized samples for V1 and V2.
- b. Plot (scatter plot) the score configuration based on PC1 and PC2.
- c. Calculate as well as plot (timeline) the T^2 and SPE statistics for all the samples respectively.

Samples	Variables	
	1	2
1	1	10
2	2	10
3	2	20
4	3	20
5	5	40
6	5	60
7	6	50
8	7	40
9	4	80
10	2	40



References

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- Jackson, J.E., (1991). *A User's Guide To Principal Components*. John Wiley and Sons. USA.
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Authors Information

Credit to the authors:



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