Process Monitoring

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Chapter 3b
Multivariate Statistical Process Monitoring

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

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Exercises

Calculate and plot the T2 and SPE statistics based on the following data using the multivariate model as well as graph developed in Exercise 1:

Variables	
1	**2**
2	105
6	110
4	122
10	126
8	115

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References

- Green, P.E., and Carroll, J.D., (1976). *Mathematical Tools for Applied Multivariate Analysis.* New York, USA: Academic Press.

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

- Martin., E.B., Morris, A.J., and Zhang, J. (1996). Process Performance Monitoring Using Multivariate Statistical Process Control. *Systems Engineering for Automation,* IEEE Proceedings.

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Authors Information

Credit to the authors:

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