Abstract

Quality prediction model has been developed in various industries to realize the faultless manufacturing. However, most of quality prediction model is developed in single-stage manufacturing. Previous studies show that single-stage quality system cannot solve quality problem in multi-stage manufacturing effectively. This study is intended to propose combination of multiple PCA+ID3 algorithm to develop quality prediction model in MMS. This technique is applied to a semiconductor manufacturing dataset using the cascade prediction approach. The result shows that the combination of multiple PCA+ID3 is manage to produce the more accurate prediction model in term of classifying both positive and negative classes.

References

- Shrivastava, S. K., and Tantuway, M. 2011. A Decision Tree Algorithm Based on

Index Terms

Computer Science
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Principal Component Analysis ID3 Quality Prediction Data Mining Multi-stage Manufacturing