



Fault Diagnosis with Bayesian Networks: Application to the Tennessee Eastman Process

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Résumé en anglais	The purpose of this article is to present and evaluate the performance of a new procedure for industrial process diagnosis. This method is based on the use of a Bayesian network as a classifier. But, as the classification performances are not very efficient in the space described by all variables of the process, an identification of important variables is made. This feature selection is made by computing the mutual information between each process variable and the class variable. The performances of this method are evaluated on the data of a benchmark problem: the Tennessee Eastman process. Three kinds of faults are taken into account on this complex process. The objective is to obtain the minimal recognition error rate for these 3 faults. Results are given and compared with results of other authors on the same data.
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