

## Accepted Manuscript

Title: Fault detection based on augmented kernel Mahalanobis distance for nonlinear dynamic processes

Author: Jun Shang Maoyin Chen Hanwen Zhang

PII: S0098-1354(17)30411-8

DOI: <https://doi.org/doi:10.1016/j.compchemeng.2017.11.010>

Reference: CACE 5954

To appear in: *Computers and Chemical Engineering*

Received date: 27-4-2017

Revised date: 24-10-2017

Accepted date: 9-11-2017



Please cite this article as: Jun Shang, Maoyin Chen, Hanwen Zhang, Fault detection based on augmented kernel Mahalanobis distance for nonlinear dynamic processes, *Computers and Chemical Engineering* (2017), <https://doi.org/10.1016/j.compchemeng.2017.11.010>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## Highlights

- Augmented kernel Mahalanobis distance is proposed for monitoring nonlinear dynamic processes.
- The disadvantage of dimensionality reduction and space partition is discussed.
- The improvement of detectability via data augmentation is analyzed.
- The computational complexity of the proposed method is analyzed.
- The benchmark Tennessee Eastman process illustrates higher detection rates of the proposed method compared with PCA and many of its variants.

Accepted Manuscript

Download English Version:

<https://daneshyari.com/en/article/6595032>

Download Persian Version:

<https://daneshyari.com/article/6595032>

[Daneshyari.com](https://daneshyari.com)