

# FAULT DIAGNOSIS SYSTEM BASED IN AGENTS

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## ABSTRACT

In this work is proposed a new agent based fault diagnosis system for complex and dynamic processes. The fault diagnosis systems of the future should have present the distribution and complexity of the processes and they must be able to cooperate and communicate with other systems to achieve a satisfactory performance. The fault detection and isolation (FDI) agents proposed here have hybrid architectures based in a horizontal layered architecture. The reactive layer of the FDI agents are based in decomposition wavelet methods for the fault detection and in neural networks for the fault isolation task. The new agent based FDI system is applied to fault diagnosis in a three tank process.

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