

## **FAULT DETECTION AND DIAGNOSIS IN REFRIGERATION SYSTEMS A SURVEY OF THE LATEST RESULTS**

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### **ABSTRACT**

Fault tolerance has become an increasingly interesting topic in the last decade where the automation has become more complex. A trend towards more autonomic control systems also drives the interest for fault tolerance. In mass produced industrial systems the unit costs is a paramount issue. Hence cheap fault tolerant control using analytical redundancy has an important industrial research area. The objective of this paper is to present the latest achievements and give an overview of the research activities concerned with detecting and diagnosing faults in refrigeration systems. The paper describes the problem of deriving analytical redundancy in refrigeration systems and gives examples that describe how the redundancy is utilized to produce fault indicators.