Abstract

In this paper an innovative way of dealing with the generation of residuals for fault detection and isolation based on structural information is presented. The developed technique considers implementation issues therefore; it has a more realistic point of view compared to classical structural approaches. First, theoretical aspects of structural analysis are considered and introduced. Then the method of introducing them to test the structural proprieties is presented. Finally, we show how the matching rank algorithm can be applied in order to choose the most suited matching that leads to residual computational sequences. The approach is applied and demonstrated through an industrial application