

Supervisory control to avoid accidents

Background

Safety and hazard analysis are done mostly in a systematic way, but based on mental models of the process. We would like to change this and use a model-based approach. Starting from a model of a continuous process, we have software that computes the possible things that may happen if the environment changes or faults occur.

The process when viewed from the HAZOP point of view is based on events. "Things" can or cannot happen.

Description

We have developed a procedure to identify possible undesirable events. We now want to explore what control actions have to be implemented in order to turn these possible events into impossible events. Thus the control action is to be designed such that the move of the process towards the undesirable state domain is prevented making the event an impossible one.

Supervision

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Reserved: No