

Pieri, Giovanni; Klein, Michel R.; Milanese, Mario

A knowledge based system for the maintenance of chemical plants and its implementation using OPTRANS. (English) [\[Zbl 0981.68681\]](#)

Monostori, László (ed.) et al., Engineering of intelligent systems. 14th international conference on industrial and engineering applications of artificial intelligence and expert systems, IEA/AIE 2001, Budapest, Hungary, June 4-7, 2001. Proceedings. Berlin: Springer. Lect. Notes Comput. Sci. 2070, 777-790 (2001).

Summary: This paper presents MAIC a knowledge-based decision support system for the maintenance of chemical plant equipment. The main functions of the system are:

- The management of information concerning the components of pieces of equipment together with the corresponding corrosion agents and critical factors for this component.
- A case based reasoning and retrieval function to search the corrosion case database for similar cases
- Several knowledge-based functions to support the economic assessment of a technically feasible solution.

The last part of the paper describes the conceptual framework of the OPTRANS development environment which was used to develop MAIC and which gives it many of its interesting features.

For the entire collection see [\[Zbl 0968.68555\]](#).

MSC:

[68U99](#) Computing methodologies and applications

Keywords:

chemical plant construction & maintenance, case-base reasoning, expert-system, knowledge based DSS, coupling case-base and deductive reasoning

Software:

OPTRANS

Full Text: [Link](#)