

USING MULTIAGENT SYSTEMS FOR SHOP FLOOR AGILITY

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Abstract: *The paper presents the problem of shop floor agility. In order to cope with the disturbances and uncertainties that characterise the current business scenarios faced by manufacturing companies, the capability of their shop floors needs to be improved quickly, such that these shop floors may be adapted, changed or become easily modifiable (shop floor reengineering). One of the critical elements in any shop floor reengineering process is the way the control/supervision architecture is changed or modified to accommodate for the new process and equipment. This paper, therefore, proposes an multi-agent architecture to support the fast adaptation or changes in the control/supervision architecture.*

Key words: *multi-agent system, shop floor agility, control/supervision architecture, virtual organisation.*

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