

INTELLIGENT TECHNIQUES IN MANUFACTURING

Abstract

The applicability of new intelligent techniques used with success on low level manufacturing, on high-level production, is still a question and a major strategic area of today research for industry. Effective utilization of equipment is critical to any manufacturing operation, especially with today's sophisticated, high-cost equipment and increased global competition. To meet these challenges in the manufacturing industry, we must use the new and sophisticated intelligent techniques for different types of manufacturing problems.

Topics

- Optimization methods
- Neural networks
- Genetic algorithms
- Fuzzy logic multi agent based design of: machine elements, integrated product development, machining tolerance allocation, selection of operating parameters for CNC machine tools, job shop and flow shop scheduling, selection of robot coordinates and trajectory planning
- New intelligent CNC machining tools
- New intelligent and advanced control algorithms in manufacturing and planning

Chair

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