Abstract

The features of high performance and reliability of systems have made them powerful computing tools. Such computing environment requires an efficient algorithm to determine when and on which system a given task should execute. This paper proposes a system that uses fuzzy logic in job allocation and job sequence or a dispatching rule in an interconnected system. The proposed system was implemented using MatLab 2008. It was designed to meet up with the timing, sequencing, routing and priority setting. The sequencing of jobs was approached using fuzzy controllers having rules with two antecedents which include the job processing time and the job Priority. From the result obtained, the system was able to achieve load balancing and minimize the job processing time.

References

1. Ziaul Hassan, Nabila Chowdhury, Abdullah-Al-MamunMasud (2012), A Fuzzy-Multicriteria Based Approach for Job Sequencing and Routing In Flexible Manufacturing System (Fms),
Global Journal of Researches in Engineering Mechanical and Mechanics Engineering, Volume 12 Issue 5 Version 1.0, Online ISSN: 2249-4596 Print ISSN:0975-5861


5. Feng Xia, Xingfa Shen, Liping Liu, Zhi Wang, and Youxian Sun (2008), Fuzzy Logic Based Feedback Scheduler for Embedded Control Systems, National Laboratory of Industrial Control Technology


9. Paolo Dadone (1997), Fuzzy Control of Flexible Manufacturing Systems, Thesis submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Master of Science in Electrical Engineering.


Index Terms

Computer Science
Fuzzy Systems
Keywords

Fuzzy logic, job scheduling, job processing time, job Priority and interconnected system.