

On The Use Of Fuzzy Logic In A Hybrid Scheme For Tolerating Mobilesupport Station Failure

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Summary

Mobile computing systems are used in different applications, some of which may be sensitive to be interrupted. However, these systems are susceptible to fault. One such fault is the failure of mobile support station. The main role of these stations is to help providing reliable and uninterrupted communication and computing facilities to mobile hosts. A scheme, known as the hybrid scheme, has recently been proposed that can tolerate failures of mobile support stations. The hybrid scheme combines the characteristics of two other schemes, known as pessimistic and optimistic schemes. There are two objectives that need to be optimized. These objectives are acknowledgement delay and storage capacity. We use fuzzy logic to find the best ratio of pessimistic to optimistic secondary stations to get the optimized values of the two objectives in the hybrid scheme. Simulation results show that fuzzy logic is a suitable choice for addressing the multiobjective nature of the problem

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