Abstract

The most important issue in Personal Communication Services (PCS) is the mobility management. And the efficiency of this PCS system is dependent on the maintenance of a reliable and optimal radio link between the mobile user and the fixed system. When the mobile user moves out of his coverage area, handoff is required to enjoy continuation of services. In this paper, a handoff algorithm termed as Fuzzy controller for Handoff Optimization (FCHO) is introduced based upon fuzzy logic. Traditional algorithms for handoff using fixed values of parameters can perform well only in specific environment but FCHO exploits attractive features of several existing algorithms, and adds more capabilities to provide adaptation to the dynamic environment. Simulation results reveal that the proposed FCHO algorithm eliminates the problem of corner effect by dynamically changing the value of threshold and hysteresis with the change in the RSSI and the velocity of the mobile station.
Handoff Optimization for Wireless and Mobile Networks using Fuzzy logic


Index Terms

Computer Science Wireless

Keywords
<table>
<thead>
<tr>
<th>Mobile station (MS)</th>
<th>base station (BS)</th>
<th>Fuzzy controlled handoff optimization (FCHO)</th>
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<tr>
<td>RSSI</td>
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<td>Received signal strength indicator</td>
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