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(54) **POWER ADAPTION IN A MULTI-STATION NETWORK**

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(57) **ABSTRACT**

The invention relates to a method of operating a communication network, the network comprising a plurality of stations which are able to transmit data to and receive data from one another. The method comprises monitoring, at each station, the transmission path quality between that station and each other station with which that station can communicate. Data corresponding to the monitored path quality is recorded at each station, thereby permitting a transmission power value based on the relevant path quality data to be selected when transmitting data to another station. Thus, the probability of transmitting data to any selected station at an optimum power level is increased. Each station transmits path quality data in its own transmissions as well as local noise/interference data, so that other stations can obtain path quality data for a particular station even if they are out of range of that particular station. The invention extends to communication apparatus which can be used to implement the method.

**21 Claims, 18 Drawing Sheets**

