

used in CR networks. Then, we proposed a new algorithm that maximise the transmission capacity of CR users; meanwhile the interference introduced to the PUs remained below the specific threshold. Furthermore, it described the Mean capacity allocation in a wireless cellular network based on the water filling power allocation in order to enhance the capacity of a MIMO systems with different channel assumptions. Here each transmitter decide the distribution of power to the several independent fading channels. Results indicates that the water-filling scheme has better capacity than without water filling with the available power budgets. The variation in outage probability is also discussed. In future we can try to to increase the sensing of spectrum in CR network and make avail more CR application with less expenditure systems.

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