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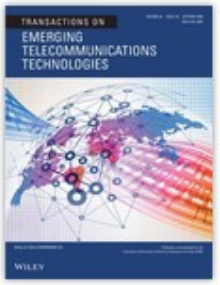

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RESEARCH ARTICLE

Quality of Experience (QoE)-based joint admission control and power allocation with guaranteed data rate

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Abstract

Service provic uality of service (QoS) conditions to an estimate sess users' quality of experience (QoE). In cont id model for call services that models the M indicator (RSSI) using a machine learning appr cus on maximizing the sum-MOS of all users, we aim to maximize the average number of satisfied users in order to allocate optimal power to each user while ensuring the minimum data rate for each of them. Simulation results show that the proposed hybrid model outperforms the conventional objective model in terms of MOS per user and the probability of user satisfaction. Furthermore, when compared to conventional sum-MOS and sum-rate maximization problems, users are more satisfied with the proposed problem. In addition, we will present a joint power allocation and admission control problem due to the limited power available to meet the needs of all users. The findings show a trade-off between the number of admitted users and their level of satisfaction, giving operators valuable insight into how to better utilize their network resources.

References Related Information

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