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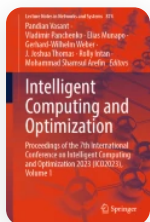☰ Menu   🔍 Search   🛒 Cart

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Improving Customer Experience Using a Hybrid Decision Tree and Support Vector Machine Approach

| Conference paper | First Online: 27 December 2024

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Intelligent Computing and Optimization

(ICO 2023)

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Abstract

In the competitive telecommunications sector, enhancing customer experience (CE) is crucial for business success. The Net Promoter Score (NPS) is a key indicator of customer

loyalty and satisfaction. To boost CE, operators monitor Quality of Experience (QoE) metrics, such as call drop rates, successful installation rates, and data transmission speeds, to identify and address service shortcomings. However, analyzing the primary drivers of NPS remains challenging. This study introduces a hybrid approach combining decision trees (DT) and support vector machines (SVM) to advance CE in telecommunications. This method utilizes SVM for predictive modeling of CE and DT to determine the significant factors affecting it. Customer satisfaction data from a telecommunications provider validates the proposed hybrid model's effectiveness. Results demonstrate the model's ability to accurately predict CE and identify essential influencing factors, offering practical implications for companies aiming to enhance customer satisfaction and overall CE.

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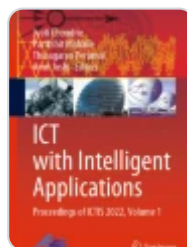Institutional subscriptions →

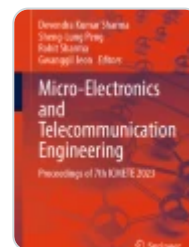## Similar content being viewed by others

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Ravisankar, A., Kumaraperumal, S., Karthikeyan, M., Chohan, J.S., Kalita, K. (2024). Improving Customer Experience Using a Hybrid Decision Tree and Support Vector Machine Approach. In: Vasant, P., *et al.* Intelligent Computing and Optimization. ICO 2023. Lecture Notes in Networks and Systems, vol 874. Springer, Cham. https://doi.org/10.1007/978-3-031-50887-5__38

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