

Public Abstract

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Title:A ROBUST OPTIMIZATION APPROACH TO SOLID WASTE COLLECTION PLANNING: LOCATION-ALLOCATION, AND SERVICE FREQUENCY

The University of Missouri has a contract with the City of Columbia to provide waste collection services on campus. An interesting aspect of this contract is that the University is charged according to a fee structure that is different for different types of receptacles. Our research aims to analyze the location and utilization of receptacles across the campus in order to identify a strategy that minimizes the contract expenses to accommodate the University's demand for waste services. We found a solution that could reduce cost by 31%.