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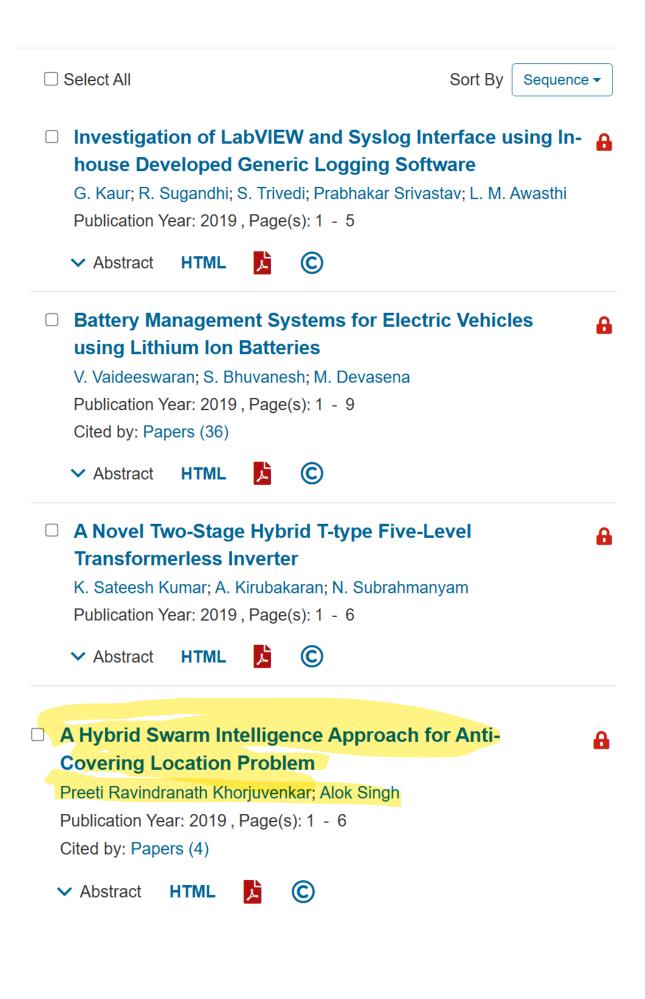
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## A Hybrid Swarm Intelligence Approach for Anti-Covering **Location Problem**

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Abstract:

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## Abstract

## Document Sections

I. Introduction

- II. Ant Colony Optimization (ACO)
- III. ACO approach for ACLP
- IV. Computational Results
- V. Conclusions and Future Work

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Given a set of potential facility location sites, the anti-covering location problem

(ACLP) seeks a maximum weighted set of facilities located in such a way that no two

placed facilities are inside a pre-specified distance of one another. The total number of

siting, locating military defence units and locating franchise outlets. This paper focuses

on presenting an Ant Colony Optimization (ACO) algorithm tailored for the un-weighted

ACLP. The ACO is a swarm intelligence technique motivated by the foraging behavior of real ants. Our proposed approach uses ACO algorithm in combination with local

search heuristics to solve ACLP. Based on the computational experiments performed

by us, it can be concluded that the proposed approach performs as good as or better

facilities to be sited is not known in advance in ACLP. It is an N P-hard problem. It finds application in locating undesirable facilities, telecommunications equipment

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**Authors** 

References

Citations

Keywords

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than the available state-of-the-art approaches.

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