A New Algorithm to Provide all Solutions of SSP Problem

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 178
Number 5

Year of Publication: 2017

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10.5120/ijca2017915825

Abstract

Sum of subset (SSP) is an important problem of complexity theory and cryptography in computer science. The SSP involves searching from a given set of distinct integers to find all the subsets whose sum of elements equal to certain integer capacity. The importance of this algorithm is that, it can be applied to create a better decryption technique and in many others. The proposed algorithm is able to find all solutions of SSP from a given set of integers. Simulation shows that the algorithm takes less number of steps as compared to traditional back tracking algorithm.

References

1. Yuli Ye, “Priority Algorithms for the Subset- Sum Problem” Master of Science Thesis, Graduate Department of Computer Science University of Toronto”2006”.

**Index Terms**

Computer Science  
Algorithms

**Keywords**

Search, Total, Next Element, Next Search, Set-A, Set-B, Remain-Set, Final Matrix.