

Handshake Algorithm for Minimum Spanning Tree Construction

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Abstract : In this paper, we introduce and analyse a probabilistic distributed algorithm for a construction of a minimum spanning tree on network. This algorithm is based on the handshake concept. Firstly, each network node is considered as a sub-spanning tree. And at each round of the execution of our algorithm, a sub-spanning trees are merged. The execution continues until all sub-spanning trees are merged into one. We analyze this algorithm by a stochastic process.

Keywords : Spanning tree, Distributed Algorithm, Handshake Algorithm, Matching, Probabilistic Analysis

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