Chapter 7

CONCLUSION

In this thesis the IVDP matching has been studied and several sequential and parallel algorithms are developed.

First we start with trees of height 1 and 2. We discuss the conditions for the existence of IVDP matching. We have developed sequential and parallel algorithms for the same. The execution time is computed in each case.

Then we have discussed the existence conditions for IVDP matching for trees of arbitrary height. The sequential and parallel algorithms for the existence is developed and the execution time is determined. In each case odd and even trees are treated separately.

When the costs are associated with the edges, the min-maxcost of matching is determined for trees of height 1 and 2. The min-maxcost is computed for trees of arbitrary height. The parallel algorithms are developed in each
case and the execution time is determined. Here also odd and even trees are treated separately.

In the problem that we have discussed the matching paths are edge disjoint. Consider the following applications of this problem. Suppose the vertices denote the computer terminals and the edges a connecting network. By a path matching we mean pairing computers in order to do a work in parallel. Since the works are done in parallel, we desire to have edge disjoint path matching. In the edge disjoint path matching, if a node is an internal node of more than one matching path, the parallel processing operation may not be efficient.

The existence of IVDP matching for various graphs such as block graphs, Interval graphs may be studied. In each case sequential and parallel algorithms may be developed and the execution time may be determined.