

8. ANT COLONY OPTIMIZATION TECHNIQUE FOR CANCER DETECTION USING GENE EXPRESSION

Bashetha. A1, Dr. G. Umarani Srikanth2

Department of CSE, S.A. Engineering College, India^{1,2}

bashetha@gmail.com¹ , gmurani@yahoo.in²

Cancer research is one of the major research areas in the medical field. An optimized solution for the better treatment of cancer and toxicity minimization on the cancer patient is performed by identifying the exact type of tumor. A clear cancer classification analysis system is required to get a clear picture on the insight of a problem. A systematic approach to analyze global gene expression is followed for identifying exact problem area. Molecular diagnostics provide a promising option of systematic human cancer classification. But these types of tests are not mostly applied because characteristics molecular markers have yet to be identified for most solid tumors. Recently, DNA micro-array based tumor gene expression profiles have been used for cancer diagnosis. In the proposed system, gene expressions are taken from multiple sources and an ontological store is created. Ant colony optimization technique is used to cluster the data with attribute match association rule for detecting cancer using the acquired knowledge.

Key words: Gene expression, cancer cells, ontological store.

Journal of Science and Innovative Engineering & Technology