

# Comparative Study of Complexities of Genetic Algorithms and other hierarchical Informed Searches

G.Kuruppu<sup>1</sup>, U.A.J. Pinidiyaarachchi<sup>2</sup>

<sup>1</sup>Post Graduate Institute of Science, University of Peradeniya Sri Lanka

<sup>2</sup>Department of Statistics and Computer Science, University of Peradeniya Sri Lanka

gihansoft@hotmail.com, ajp@pdn.ac.lk

*Abstract-* Search Algorithms are widely used in various contexts of computer science, mainly in finding the optimal solution. Some search algorithms are very accurate but computationally complex, thereby resulting limitations in applying them in practical real time applications. In this paper we discuss A\* Search, Greedy Search and Genetic Algorithms comparatively with a modified Genetic Algorithm that we introduce, in the application of complex path finding. Simulation results show that Genetic Algorithm and modified Genetic Algorithm are suitable for path finding problems.