

## Documents

Nair, T.R.G., Sooda, K.

**An intelligent routing approach using genetic algorithms for quality graded network**

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**Abstract**

Intelligent routing in networks has opened up many challenges in modelling and methods, over the past decade. Many techniques do exist for routing on such an environment where path determination was carried out by advertisement, position and near-optimum node selection schemes. In this paper, an efficient routing scheme has been proposed using genetic algorithm for a grade-based two-level node selection method. This method assumes that nodes have the knowledge of its environment and is capable of taking decision for route discovery. The data learnt from the topology which is under consideration for routing, is saved in its local memory. In this two-level node selection scheme, the route discovery operation takes place in multiple levels. At the first level, the grade based selection is applied for considering the most optimal nodes which would be fit for sending data. At the second level, the optimal path is discovered using Genetic Algorithm. The simulation result shows that faster convergence of path took place in the case of the proposed method with good fitness value, as compared to non-graded network. © 2012 Inderscience Enterprises Ltd.

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