**THE APPLICATION OF GENETIC ALGORITHM IN THE MOBILITY MANAGEMENT OF THE HETEROGENEOUS NETWORK**

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# ABSTRACT

Living in the world we have today with modern technology it has become essential for users to stay connected to telecommunication devices and gadgets for the purpose of keeping in touch with others anywhere across the world as well as seeking knowledge or information online. Thus the importance of connectivity has become increasingly vital and constant concern of not only all telecommunication bodies and mobile network providers but users as well serving as their customers. In order to meet up with customer demands on faster connection to various networks as well as wider coverage and robust technology service, mobility management becomes the main focus for research and development study in the field of telecommunication. Mobility management is the main key of keeping any type of networks, including heterogeneous network performing as best as it can with minimized interruptions.

Part of this project focus is to gain familiarity with mobility management in the heterogeneous network. Furthermore to reach the main goal of this study is to seek method of optimizing the heterogeneous network by improving certain parameters as part of its mobility management. The proposed solver in providing this solution to optimizing network is the evolutionary algorithm called Genetic Algorithm.

Genetic algorithm has the ability to introduce solutions to various types of problems. For instance, the process of implementing genetic algorithm involves few stages of sorting and manipulating the parameters data of the heterogeneous network. Consequently at the end of the process, repeated iteration done by Genetic Algorithm will reach a point of providing solution into minimizing or maximizing the parameters hence creating an optimised heterogeneous network.