Abstract

Wireless communication has observed inordinate advancement since the beginning of this century. There is an expansion in wireless communication due to upsurge in demands of customers for better services. To give fine quality to customers there is need to plan the network. This work considers how to optimally locate the BTS so that maximum coverage obtained at lesser infrastructure cost. This dissertation work is intended to present the investigations on swarm based optimization technique to locate the BTS in a network. In this work to locate the BTS, firstly calculate the SINR, capacity and network performance are calculated to find optimal no. of cell sites. Thereafter FPA is used to find the location of these sites. Furthermore FPA is compared with ABC to optimally locate the BTS.

References

1. Abdul Ghani Abro, Junita Mohamad-Saleh “Intelligent Scout-Bee Based Artificial Bee Colony Optimization Algorithm” International Conference on Control System, Computing and
2. Aida Al-Samawi, Aduwati Sali, NorKamariah Noordin, Mohamed Othman, and Fazirul Hisyam Hashi, “Base Station Location Optimization in LTE using GA”, Dept. of Computer & Communication Systems Engineering Faculty of Engineering, UPM, 43400, Selangor, Malaysia, Department of Communication Technology and Network Faculty of Computer Science and Information Technology, UPM, Selangor, Malaysia 2013 IEEE.


9. Rambally, R.S, Maharajh, A, “Cell Planning Using GA and Tabu Search” ; Univ. of Trinidad & Tobago 2009 IEEE.


15. Xin-She Yang, Mehmet Karamanoglu, Xingshi Heb “Multi-objective Flower Algorithm for Optimization” a School of Science and Technology, Middlesex University, London NW4 4BT.
UK school of Science, Xi’an Polytechnic University, Xi’an, P. R. China ICCS 2013

**Index Terms**

Computer Science Algorithms

**Keywords**

Flower Pollination Algorithm, Artificial Bee Colony Algorithm, Base Transceiver Station, Mobile Station, Cellular Mobile Communication.