

Energy Efficient Firefly Algorithm in Wireless Sensor Network

Authors : Wafa' Alsharafat, Khalid Batiha, Alaa Kassab

Abstract : Wireless sensor network (WSN) is comprised of a huge number of small and cheap devices known as sensor nodes. Usually, these sensor nodes are massively and deployed randomly as in Ad-hoc over hostile and harsh environment to sense, collect and transmit data to the needed locations (i.e., base station). One of the main advantages of WSN is that the ability to work in unattended and scattered environments regardless the presence of humans such as remote active volcanoes environments or earthquakes. In WSN expanding network, lifetime is a major concern. Clustering technique is more important to maximize network lifetime. Nature-inspired algorithms are developed and optimized to find optimized solutions for various optimization problems. We proposed Energy Efficient Firefly Algorithm to improve network lifetime as long as possible.

Keywords : wireless network, SN, Firefly, energy efficiency

Conference Title : ICCSIT 2017 : International Conference on Computer Science and Information Technology

Conference Location : New York, United States

Conference Dates : October 05-06, 2017