PROCEDURE AND SYSTEM FOR RESOLVING OPTIMIZATION PROBLEMS THROUGH MOBILE DEVICE NETWORKS

Description:

The present invention consists of a procedure and a system for taking advantage of the computing capacity of mobile devices and communication through the Bluetooth® standard for data transfer in a distributed environment where all devices cooperate to solve problems. complex. The method of the invention that arises consists of executing bio-inspired algorithms on mobile devices that communicate using wireless technology, preferably Bluetooth®, Wi-Fi or similar. Each device communicates with the others without the intervention of any central server that manages the entire process, or in a client - server (or master - slave) architecture where the server is a central computer that will execute a specific BnB algorithm (Branch and Bound, Branching and Pruning) while clients (mobile devices) will run bio-inspired algorithms independently.

Keywords:

Communications, Device, Networks, Mobile Devices, Software, Mobile, Bluetooth, Wifi, Optimization, Algorithms

Sectors:

ICT

Areas:

Telecommunications, Software / Procedures, Internet and Networks

Advantages:

The user intervenes in the resolution process dynamically and instantaneously if necessary so that user networks can be created that intervene at the same time in the optimization of specific problems, games, coordination and communication.

Uses and Applications:

This technology is useful in any field that requires the resolution / optimization of problems with a dynamic nature (that is, basically those whose solutions or optimal ones can change during the resolution process based on certain criteria such as the introduction of new restrictions or the variation of objective functions) and / or interactive (that is, those that require human intervention - an expert or a mere user - in the process of finding the solution / optimal). Thus, among the most suitable fields for this invention would be the segment of shared games using mobile devices in real time, as well as in the organization of mass events or extreme circumstances in which there is a lack of broadband for communications (for example , medical camps in isolated geographical areas, catastrophes such as earthquakes that break ordinary communications, etc ...).

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