METHODS IMPLEMENTED IN COMPUTER AND COMPUTER SYSTEMS FOR AUTOMATIC ACTIVATION AND DEACTIVATION OF CONCURRENT DATA TRANSMISSION BETWEEN DEVICES CONNECTED TO A NETWORK

Description:

The present invention consists of a system that, inserted in a data transmission path over the Internet through which this data is being requested repeatedly, is capable of deciding how many of them should be requested in the next iteration in order to meet two objectives simultaneously: that the probability that these data reaches its destination before a predetermined time is greater than or equal to a given one, and that the amount of data that is transmitted is the maximum possible, fulfilling the above. Both things are achieved despite the fact that the possibilities and conditions of the transmission path and data processing vary stochastically over time, even when there are sudden changes in the delays involved.

Keywords:
Communications, Networks, Information Flow

Sectors:
ICT

Areas:
Telecommunications, Software / Procedures, Internet and Networks

Advantages:

The invention makes it possible to decide at all times, with a low computational cost procedure, how much information must be transmitted to meet the requirements of maximum transmission times; it is capable of adapting to sudden regime changes in transmission delays; Any model of those times can be added to predict them; can be used for multiple transmission paths concurrently; It has been shown to statistically have a better chance of meeting the required maximum transmission times than other existing procedures.

Uses and Applications:

The applications of a transmission delay regulation system in order not to exceed maximum limits are very diverse: diffusion of multimedia content over stochastic networks such as the Internet; remote surveillance; telepresence; remote control of physical devices (eg robots or machinery) through non-deterministic networks, thereby reducing the cost of system implementation due to the use of non-specific commercial components; etc.

Patent Number: ES2565878B2
Applicants: Universidad De Málaga
Inventors: Juan Antonio Fernandez Madrigal, Ana Gago Benítez, Ana Maria Cruz Martin, Ángel Martínez Tenor, Rafael Asenjo Plaza, Maria Angeles Gonzalez Navarro
Filing Date: 31/10/2014
Protection Level: National (Spain)
Processing Status: Spanish patent