DATA TRANSMISSION ON MULTIPLE ACCESS CHANNEL

Multi-coded slot ALOHA with turbo on PSK

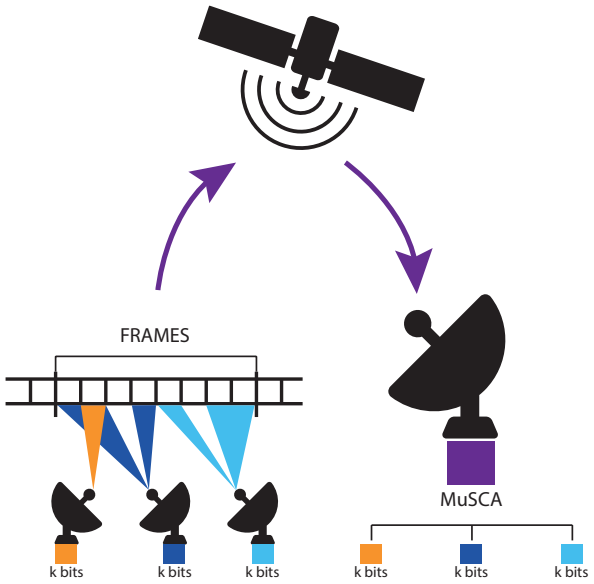
Technological benefits

Improvements to existing signaling techniques

Protection against errors and package collisions.
Increases stability and transmission capacity of a communication channel (Slotted ALOHA).
Using an error correction code (Turbocode, LDPC).

Simple & effective

Faster sending and decoding despite collisions.
Adaptive coding rate to the charge of the channel.
Maximum capacity in the channel.
Very robust to SNRs.
Channel's capacity higher than conventional methods (RCL CRDSA 2, IRSA).
Higher performance to the classical sloted ALOHA when signal / noise ratio is positive (from 0.36 to 0,85 / 0.89).



Data transmission on a multiple access communication channel.

Invention overview

Musca is a communication protocol for Internet by Satellite. It improves the transmission of data during initialization / signaling phase on multiple access channel by fighting against multiple packet collisions. It provides 2 times better results than existing mechanisms, even at very low signal / noise ratio (SNRs).

Commercial benefits

Economic

Time saving in the initialization of the transmission.
Improving current solutions.

Simplicity

Program available - software model.

Potential applications

Satellite telecommunications (DVB-RCS 2).

Aeronautical communication.

Communication initialization techniques.

Signaling communication.

Tags, counters (Argos, etc.)

TRL : 3/4
Invention available under license.

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For further information

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