2015

FAWIN project *("**F**ast Transmission of **A**nalog Information over **WI**reless **N**etworks")*

- Funding Entity: Office of Naval Research Global (ONR Global).

- Beginning: May, 2015.
- End: April, 2017.
- Main Researcher: Luis Castedo .
- Participating Entities: Universidad de A Coruña, Office of Naval Research.
- Description: The design of efficient transmission schemes to reliably communicate information at high rates and with very low delay represents an outstanding challenge in wireless communications and multiuser scenarios. This topic is of great value for communication systems for Defense because the exchange of critical information between the surveillance/attack nodes and the coordination base can be vital to save human lives or overtake the enemy in the battlefield. In this context, the joint optimization of the encoding operations that transforms the source data into adequate channel symbols to be transmitted over wireless channels arises as an useful and effective alternative to improve the quality of the communication process. Since most of the typical information of interest for Defense purposes -such as parameter values, sounds, images or video- is originally described by analog signals, continuous Joint Source Channel Coding (JSCC) mappings can be considered to directly transform the analog source symbols into the associated coded symbols that are transmitted over a given channel.


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