SHARED TLC / DSP / ELE / RF PROJECTS | Filippo Valmori

The objective of this website is to provide practical lessons about telecommunication (TLC), digital signal processing (DSP), electronics (ELE) and radio-frequency (RF) by means of focused projects and simulations. All material is intentionally left free and downloadable.
The TLC/DSP codes here proposed are focused on the most major steps of a typical communication chain (such as modulations or channel coding), and developed mainly in MATLAB, C/C++ and Python languages, but they can be easily adapted for other languages and usages as well (e.g. for GNU Radio applications). The ELE/RF projects concern circuits operation, PCB design, FPGA/MCU embedded programming and RF hardware by means of LTspice, Altium Designer and CST sofwares.

Home
DSP | Convolutional Coding
DSP | Reed-Solomon Coding
DSP | Scrambling
ELE | FPGA-MCU UART
ELE | Overvoltage Protection
TLC | Frequency Modulations

UPCOMING

- Equalizers (ZF, LMS, MSE)
- Interleaving
- CRC Validation
- Carrier & Symbol Synchronization

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