

List of examples of projects.

Project 1: Adaptive coding and modulation.

In this project systems that use adaptive coding and modulation is investigated and explained, and also the gains obtained (xDSL, WLAN, EDGE, 3G,...). An interesting sub-problem should also be studied.

Project 2: Choice of pulse shapes in advanced applications.

In this project different advanced pulse shapes that are designed to resist intersymbol interference is investigated and explained. An interesting sub-problem should also be studied.

Project 3: Signal power distribution over the frequency axis to obtain high bit rates.

In this project systems that use this kind of technique is investigated and explained, and also the gains obtained (xDSL, WLAN, EDGE, 3G,...). An interesting sub-problem should also be studied.

Project 4: MIMO system.

In this project MIMO systems, and possible applications, are investigated and explained. An interesting sub-problem should also be studied.

Project 5: OFDM system.

In this project the techniques used in OFDM systems, and an application, are investigated and explained. An interesting sub-problem should also be studied.

Project 6: The importance of diversity to improve performance.

In this project the concept of diversity is investigated and explained. An interesting sub-problem should also be studied.

Project 7: Bluetooth.

In this project the technique used in Bluetooth, and an application, are investigated and explained. An interesting sub-problem should also be studied.

Project 8: Digital TV.

In this project the techniques used in Digital TV is investigated and explained. An interesting sub-problem should also be studied.

Project 9: Wimax.

In this project the technique used in Wimax systems, and possible applications, are investigated and explained. An interesting sub-problem should also be studied.

Project 10: The multipath channel.

In this project some consequences of the multipath channel is investigated. What kind of signals should be used, receiver design and error probability are here considered.

Project 11: Communication over power lines.

In this project possible techniques for communication over power lines, and possible applications, are investigated and explained. An interesting sub-problem should also be studied.

Project 12: Signal design to simplify synchronization.

In this project we investigate how signals can be designed to simplify synchronisation in the receiver. An interesting sub-problem should also be studied.