**PhD in Information Engineering**

**XXX Cycle**

**Physical layer security**

**Course description**

Recently, researchers came up with a new security approach, from information theory fundamentals, which is focused on the exploitation of the intrinsic property of the radio environment and of the electromagnetic waves to produce security at the physical layer, with no assumption on the computational capabilities of eavesdroppers and with the added benefit of reducing the load on the security protocols at the upper levels.

**Summary**

* An information-theoretic approach to security
* Secrecy capacity
* Coding for secrecy
* Secure communications over fading channels