

Smart Energy - EUR

ECTS
3 crédits

Composante
Sciences Fondamentales et Appliquées

Présentation

Description

The part 1 addresses the problem of optimizing the quality of service

(QoS) required of a digital communication system when energy

consumption is constrained. These are strategies related to adaptive

modulations or the use of optical rather than electromagnetic

communications ... Quality of service can be define by transmission

distance, bit error rate, bit rate and requires knowledge of the link budget.

In the part 2, we define the constituent elements of an IOT ..., all the

elements "composing" their behaviour and in particular their consumption

characteristics. We will also look at the physics of some components. The

following chapters will be discussed: Sensors for IoT (temperature, gaz,

light...), antennas for IoT, transmitters / receivers for IoT Materials and

technologies for sensors, antennas, transceivers for IoT, harvesting and

storage module. Materials and processes for each device will be described.

Heures d'enseignement

Smart Energy - EUR	CM	26h
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Smart Energy - EUR	TD	34h
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Pré-requis nécessaires

Methodology part of electronic design of IoT

Physics of components and semiconductors in IoT