

Τίτλος (Ελλ.)	Τίτλος (Αγγλ.)	Υπεύθυνος	Διδάσκοντες
Έξυπνοι Αισθητήρες και Διαδίκτυο των Αντικειμένων	Smart Sensors and Internet of Things	ΑΡΒΑΝΙΤΗΣ	ΑΡΒΑΝΙΤΗΣ, ΛΟΥΚΑΤΟΣ, ΠΡΟΣΚΕΚΛΗΜΕΝΟΙ ΕΙΣΗΓΗΤΕΣ

#### Περιγραφή

These lecture series are dedicated in communicating the fundamentals of Internet of Things (IoT) technologies, with emphasis on agricultural applications.

The areas being covered include but are not limited to:

Basic transducer and digitization theory, communication signals and principles, packet networks, network topologies, OSI and TCP/IP models, client-server architectures, LPWAN, network security, cellular networks, cloud infrastructures and services, sensor and actuator networks, edge computing, edge intelligence, field experimentation paradigm with emphasis on agricultural applications.

WEEK	Course Contents
1 <sup>ST</sup>	Transducer and digitization principles
2 <sup>ND</sup>	Telecommunication signals and techniques
3 <sup>RD</sup>	Packet networks, topologies and protocols
4 <sup>TH</sup>	Emphasizing on wireless technologies and protocols
5 <sup>TH</sup>	Cellular networks and alternatives for agricultural applications
6 <sup>TH</sup>	Routing techniques and protocols
7 <sup>TH</sup>	Client-server architectures
8 <sup>TH</sup>	Cloud infrastructures and services
9 <sup>TH</sup>	Network security issues
10 <sup>TH</sup>	Sensing and the acting actions via the network
11 <sup>TH</sup>	Adding edge computing and edge intelligence features
12 <sup>TH</sup>	Energy efficiency and range coverage issues
13 <sup>TH</sup>	Field experimentation paradigm with emphasis on agricultural applications

#### Μέθοδος Αξιολόγησης

Assessment method: A combination of written exams and project assignments during the semester

