

IOT

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U-3 [IMP]

- * Classify the four pillars of IOT.
- * Illustrate steps of IOT design methodology, for i) weather forecasting
ii) smart irrigation system.
- * Demonstrate the use of SCADA with the help of suitable IOT Application.
- * Classify different connectivity technologies required for IOT system developed & explain any one of them in brief.

U-4 [IMP]

- * Illustrate different issues with standardization of IOT protocols.
- * Classify the different Topology of IEEE 802.15.4 & explain with suitable diagram
- * Show the use of LoRA protocol in any suitable IOT application development.
- * Illustrate the various IOT applications developed using IP protocols.
- * Difference between RFID & SCADA Protocol.
- * Examine that why zigBee is popular than Wi-Fi & Bluetooth in IOT.

U-5 [IMP]

- * Demonstrate the Django framework with the suitable supporting application.
- * Use the knowledge of cloud computing to demonstrate:-
 - 1) Amazon Auto Scaling.
 - 2) Xively Cloud for IOT.
 - 3) Auto Bahn for IOT.
- * Show that WAMP & its key concepts are useful in cloud based IOT application Development.
- * Apply the concept of cloud computing to design the smart irrigation system with proper explanation.
- * Apply the concept of cloud computing to design the smart home system with proper explanation.

U-6 [IMP]

- * Predict the possible challenges in designing secure IOT applications.
- * Show the use of classic pillars of information assurance while securing the IOT application.
- * Examine how threat model is useful ~~to~~ in securing IOT applications.
- * Use security concepts to identify different threats (at least 03 in each) in the following IOT applications:-
 - i) Smart Home Automation.
 - ii) Smart Parking system.
 - iii) Smart Irrigation System.
 - iv) Smart home system.