



SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution



Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A++' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

19EET304/ IOT FOR ELECTRICAL SCIENCES
III YEAR VI SEM

UNIT 5 – IOT IMPLEMENTATIONS

TOPIC 2 – Commercial building automation using IoT



Consider an example,

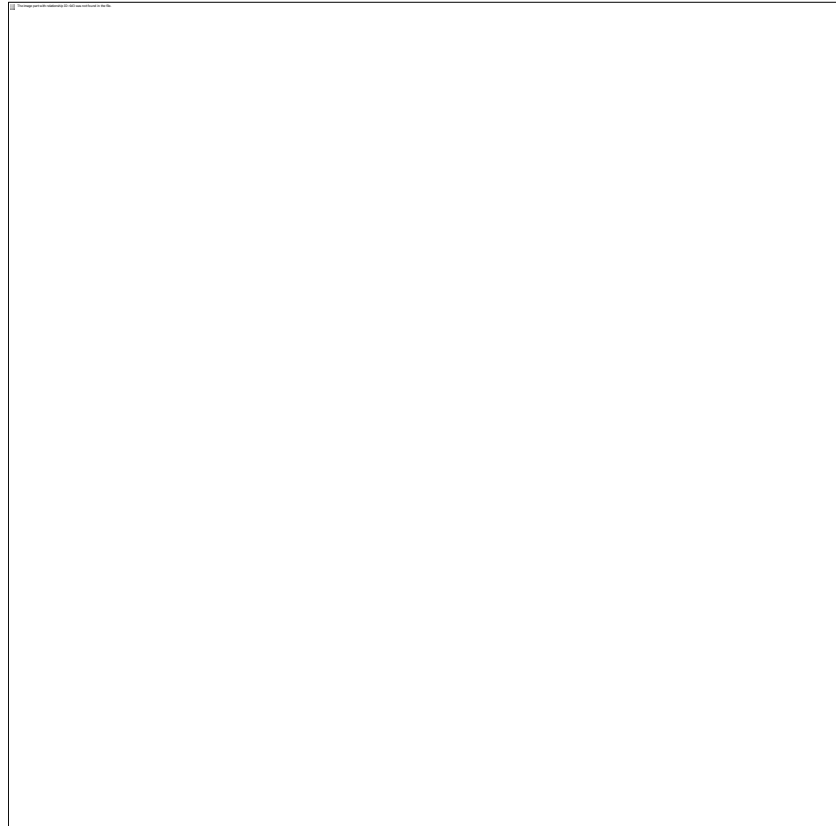
Explain the process





How automate a building using IoT?

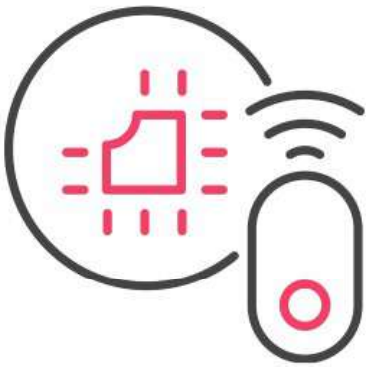
In building automation systems, smart devices are used to control equipment such as lighting, HVAC, refrigeration etc. For example, a smart thermostat can adjust temperature settings based on occupancy levels, time of day, and weather conditions identified by the IoT sensors.





Key components in IoT-powered Building Automation System

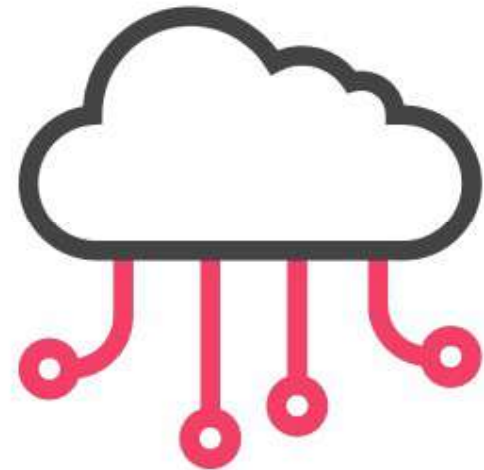
1. IoT Sensors



2. Smart Devices/Actuators



3. Cloud Computing

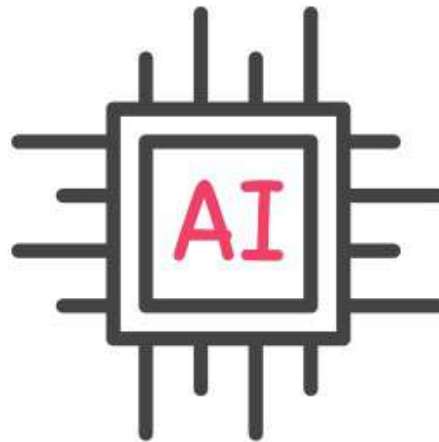




Key components in IoT-powered Building Automation System

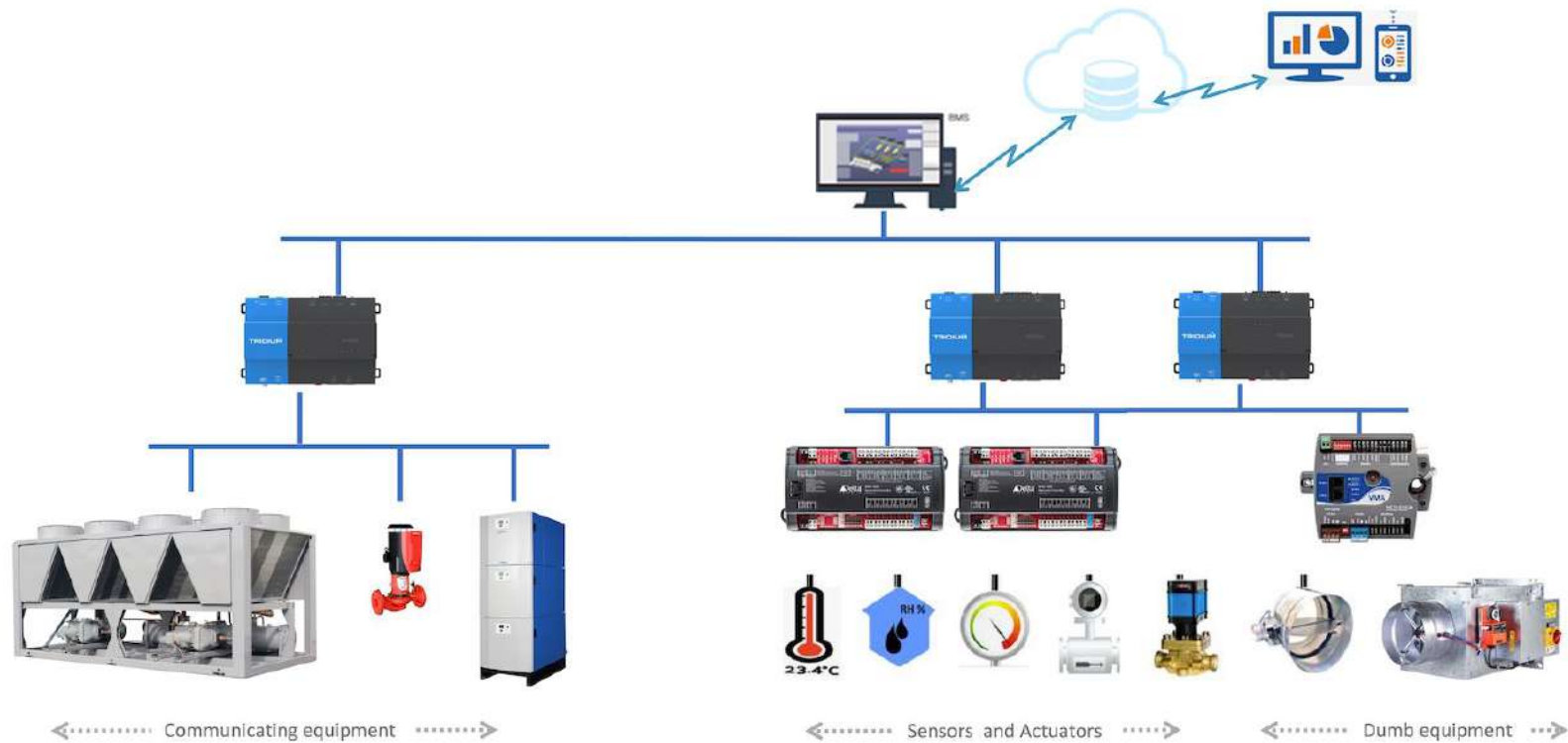


4. Artificial Intelligence & Data Analytics



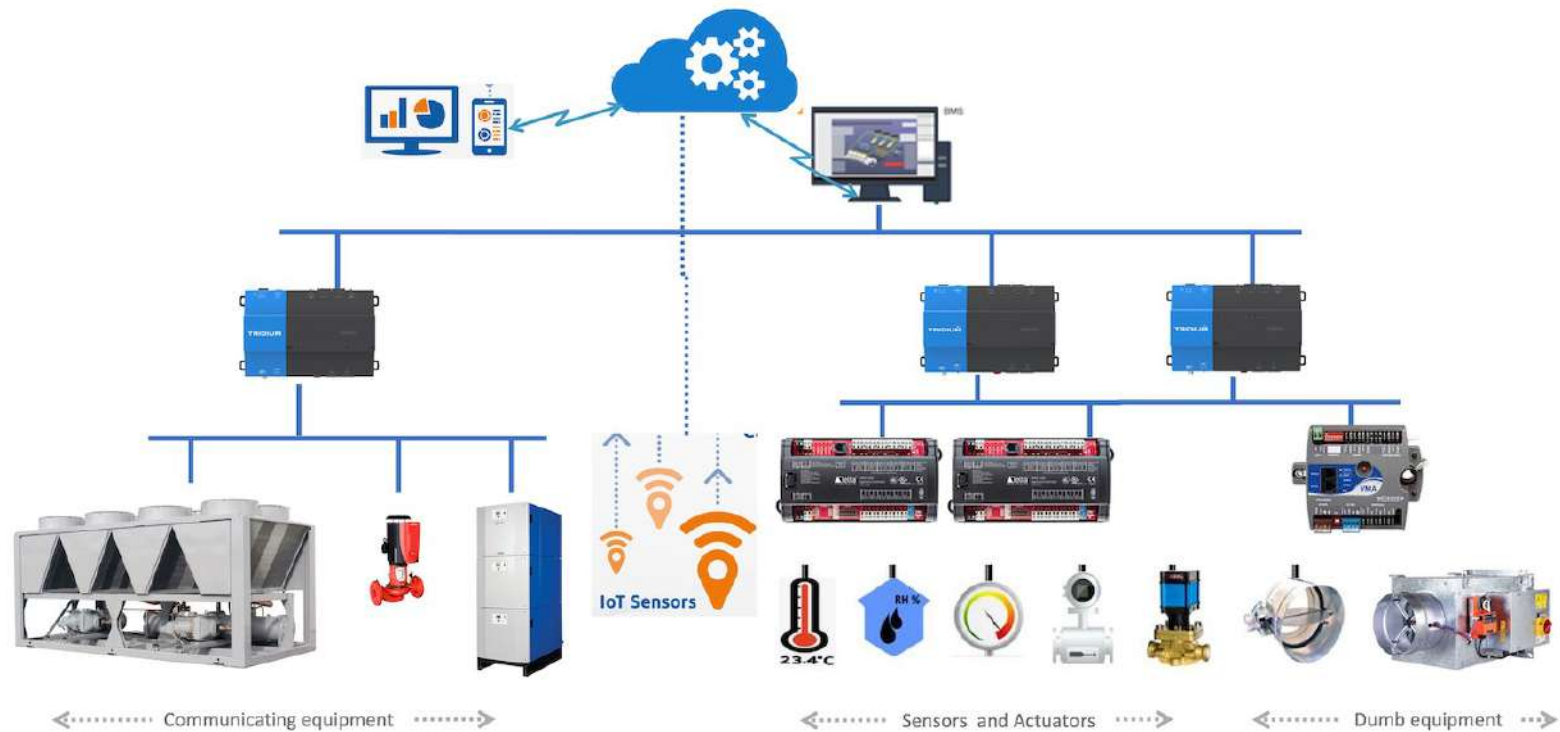


Traditional Building Management System With Added Cloud Connectivity





Traditional Building Management System With Added Sensor Overlay





A native IoT Building Management System architecture

Supervisor of Supervisor

- Monitor across buildings
- Cloud native

Supervisor / Global Automation

- All sequences are run globally
- Communication over wireless network

Field automation

- Sequences run locally only in case of failure
- Communication over wireless upstream. Hard wired downstream

Field devices

- Sensors
- Actuators
- Terminal units





ASSESSMENT

Find the Process





References

- <https://blog.attuneiot.com/inside-look-into-commercial-iot-and-automation#:~:text=IoT%20solutions%20can%20help%20businesses,motion%2C%20pressure%20drops%2C%20etc.>
- <https://www.sierrawireless.com/iot-blog/what-is-a-smart-commercial-building/>
- <https://geekflare.com/building-automation-with-iot-devices/>



Thank You