



SNS COLLEGE OF TECHNOLOGY



Coimbatore-35.

An Autonomous Institution

COURSE NAME : 19ITT302 INTERNET OF THINGS

III YEAR/ V SEMESTER

UNIT – I IoT INTRODUCTION AND APPLICATIONS

Topic - IoT Applications



UNIT I IOT INTRODUCTION AND APPLICATIONS

Overview and Motivations - IPv6 Role - IoT Definitions - Observations - ITU-T Views – Working Definition - IoT Frameworks - Basic Nodal Capabilities – Physical Design of IoT - Logical Design of IoT – Applications: - City Automation Automotive Applications - Home Automation - IoT Levels & Deployment Templates - IoT and M2M



IoT Applications

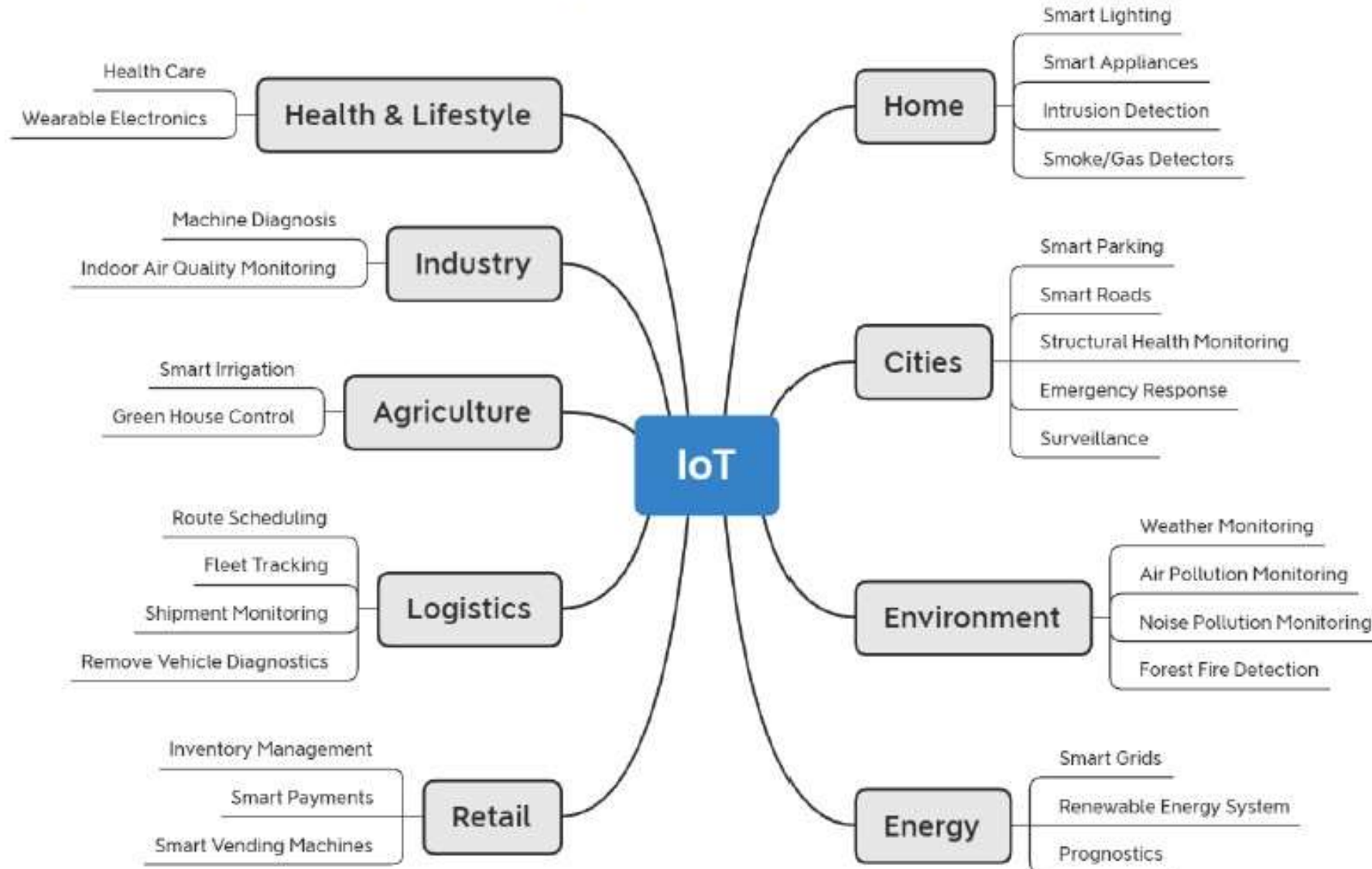


IoT used in Many areas. Some important applications are

- City Automation
- Automotive Applications
- Home Automation
- Environment
- Energy
- Retail
- Logistics
- Agriculture
- Industry
- Health and Life Style



IoT Applications





City Automation





City Automation

Some applications in this domain include but are not limited to the following

- Traffic flow management system in combination with dynamic traffic light control
- Street light control
- Passenger information system for public transportation
- Passive surveillance
- Smart Parking
- Smart Road
- Structural Health Monitoring
- Emergency Response (Fire, Gas, Water Leakage Detection)
- Smart Waste Management



City Automation



Common Sensors used are

- Thermal (Temperature of solid, liquid, gas)
- Hygrometric (Humidity)
- Anemometric (Wind speed, pressure, velocity)
- Sound (Noise, Sound level)
- Gas (Detect different gases)
- Particles (Smoke and dust in air)
- light, other EM spectrum (intensity of light, infrared, ultraviolet, x-ray, gamma ray)
- Seismic (Vibration)

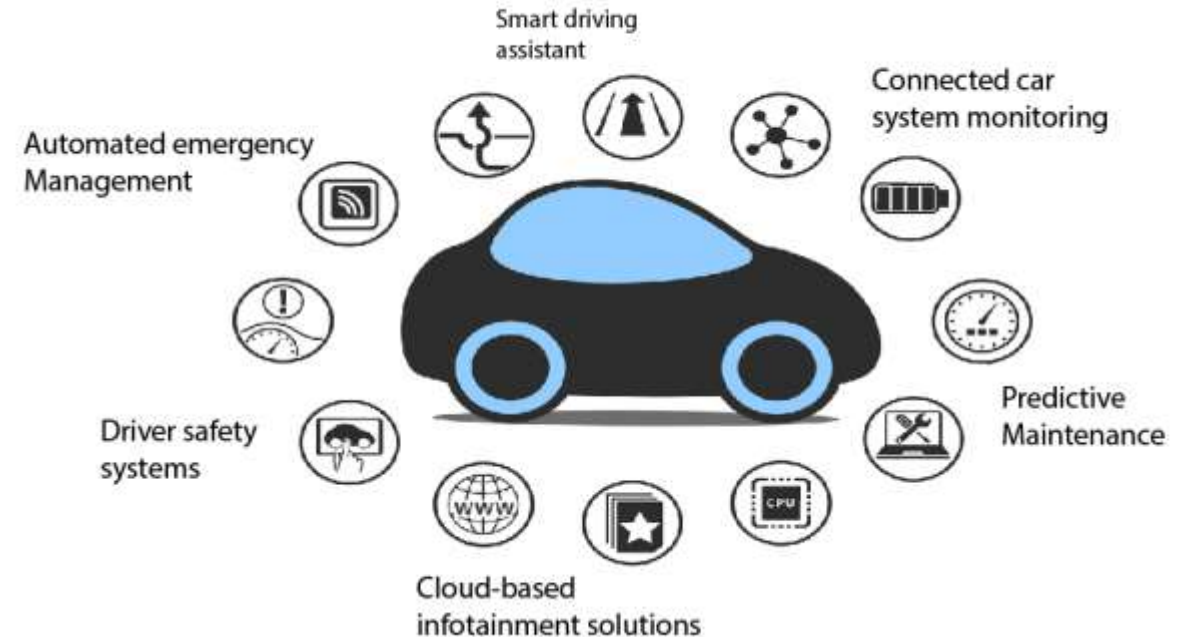


Automotive Applications



IoT/M2M automotive and transportation applications focus on

- Safety, (Vehicle health diagnostic, breakdown call)
- Security, (Stolen vehicle tracking, engine immobilizer)
- connected navigation, and other vehicle services such as, but not limited to,
- insurance or road pricing,
- emergency assistance,
- fleet management (Fleet movement, vibratic
- electric car charging management, and
- traffic optimization.





Home Automation

M2M communications is expected to play a major role in residences, where instrumentation of elements supporting daily living (e.g., appliances), comfort, health, security, and energy efficiency can improve the quality of life and the quality of experience.

Home control applications include but are not limited to:

- Lighting control
- Thermostat/HVAC
- White goods/ Appliance control
- In-home displays





Home Automation

Home security applications include but are not limited to:

- Door access phone
- Window locks
- Motion detector
- Smoke/fire alert
- Baby monitors
- Medical pendant





Thank You!