SNS COLLEGE OF ENGINEERING

Kurumbapalayam(Po), Coimbatore – 641 107

Accredited by NAAC-UGC with 'A' Grade

Approved by AICTE, Recognized by UGC & Affiliated to Anna University, Chennai

Department of Information Technology

Course Name –Internet of Things & AI

III Year / V Semester

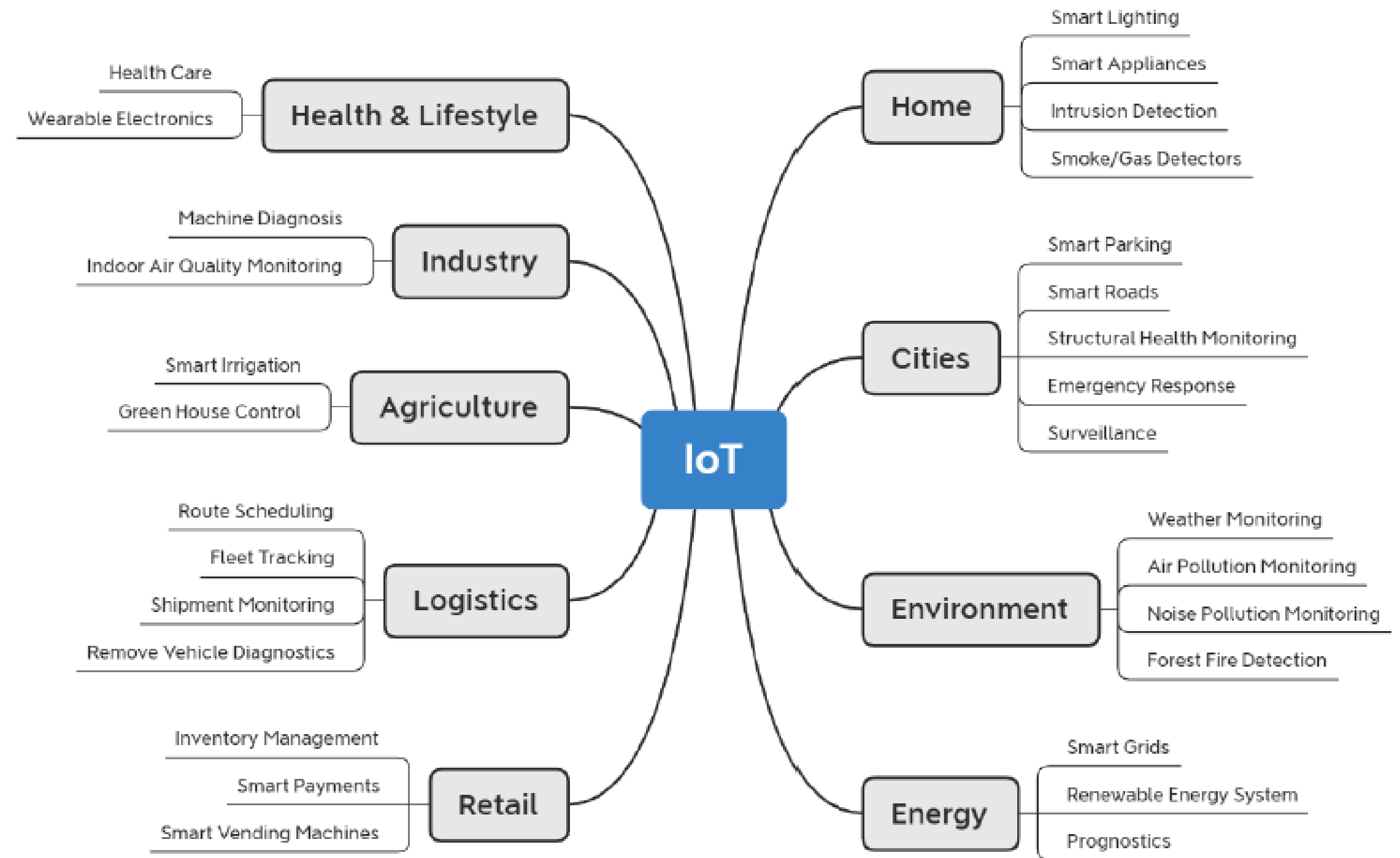**Unit 1 – IoT INTRODUCTION AND APPLICATIONS**

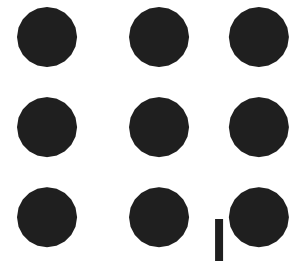**Topic 6- IoT Applications**

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

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)
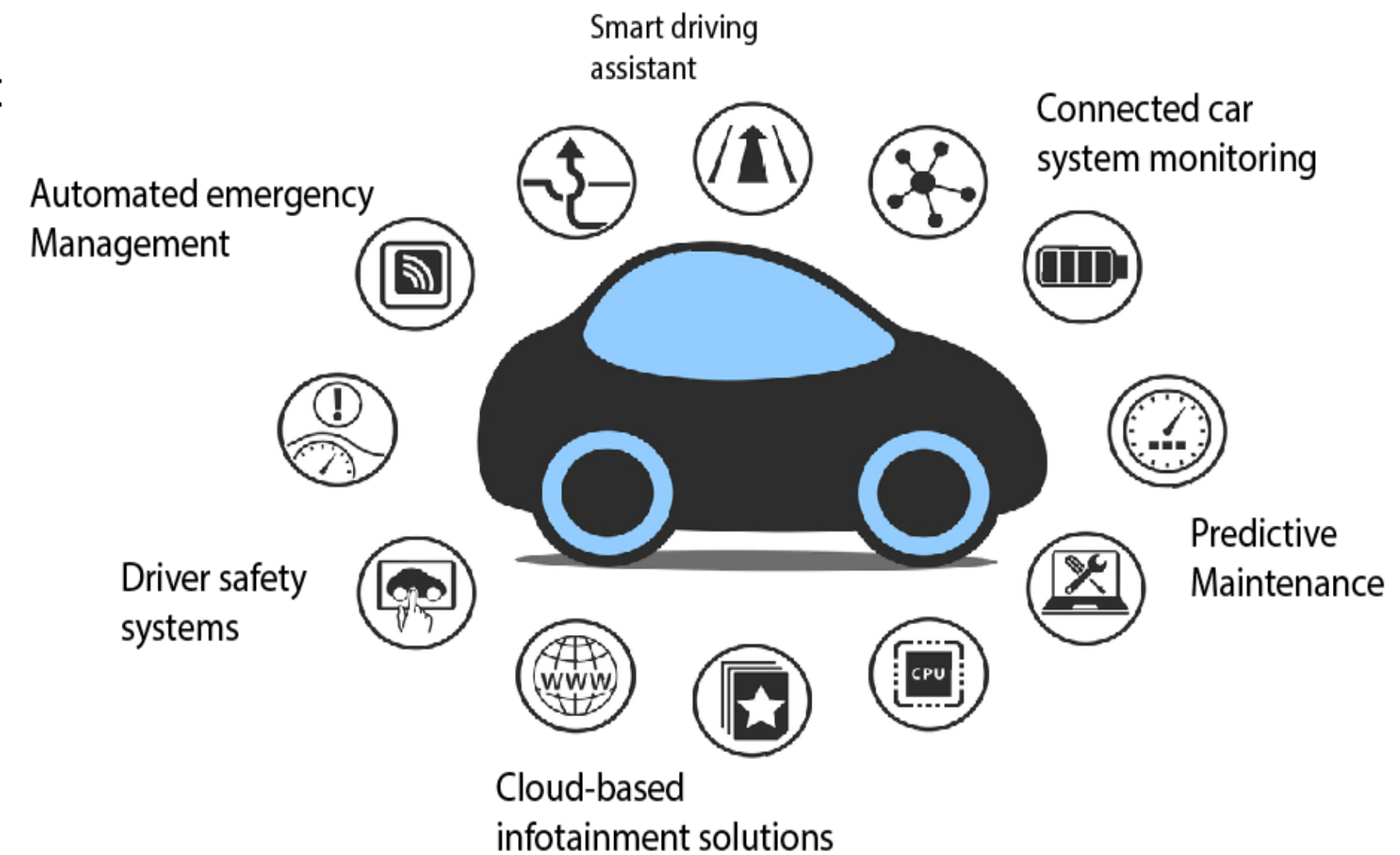- Smart Waste Management

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, vibration, velocit
- electric car charging management, and
- traffic optimization.
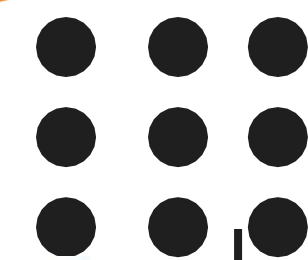
Home Automation

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
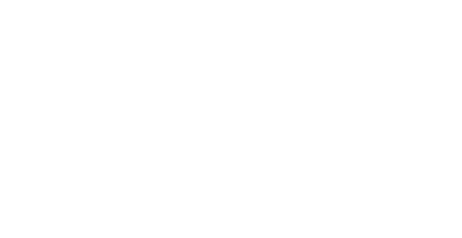- White goods/ Appliance control
- In-home displays

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