# SNS COLLEGE OF TECHNOLOGY

**Coimbatore-35**
**An Autonomous Institution**

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Grade
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Chennai

# DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

## 19ECE308- WIRELESS TECHNOLOGIES FOR IOT

III ECE / VI SEMESTER

UNIT 1 – OVERVIEW OF INTERNET OF THINGS

## TOPIC 2 –IoT Architectural View

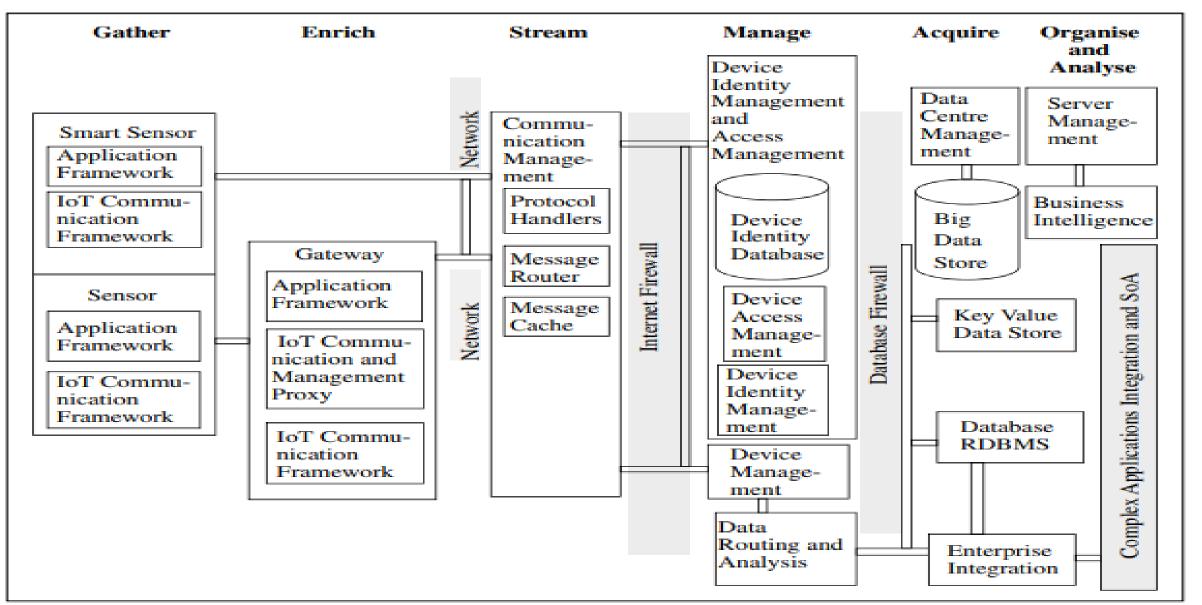# CISCO's presentation of a reference model comprising seven levels

Level 7- Collaboration and Processes (Involving people and business processes)

Level 6- Application (Reporting, Analysis, Control)

Level 5- Data Abstraction (Aggregation and Access)

Level 4- Data Accumulation (Storage)

Level 3- Edge Computing (Data Element Analysis and Transformation)

Level 2- Connectivity (Communication and Processing Units)

Level 1- Physical Devices and Controllers (the things in IoT)
[Sensors, machines, devices, intelligent edge nodes of different types]

# Oracle's IoT architecture

# IoT architecture Features

- The architecture serves as a reference in applications of IoT in services and business processes.

- A set of sensors which are smart, capture the data, perform necessary data element analysis and transformation as per device application framework and connect directly to a communication manager.

# IoT architecture Features

- A set of sensor circuits is connected to a gateway possessing separate data capturing, gathering, computing and communication capabilities. The gateway receives the data in one form at one end and sends it in another form to the other end.

- The communication-management subsystem consists of protocol handlers, message routers and message cache.

- This management subsystem has functionalities for device identity database, device identity management and access management.

- Data routes from the gateway through the Internet and data centre to the application server or enterprise server which acquires that data.

- Organisation and analysis subsystems enable the services, business processes, enterprise integration and complex processes