

#### **SNS COLLEGE OF TECHNOLOGY**

#### (AN AUTONOMOUS INSTITUTION)

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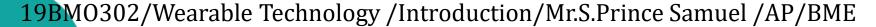


# **Department of Biomedical Engineering**

**Course Name: 19BM0302 & WEARABLE TECHNOLOGIES** 

**Topic:** Introduction to Wearable Sensors

**Semester:6** 



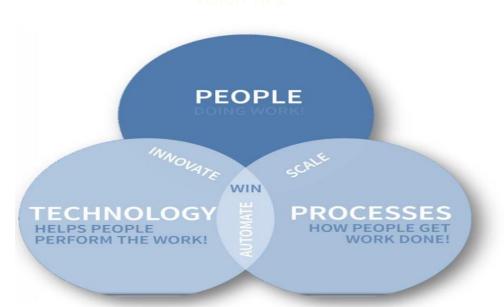


# NEED FOR WEARABLE TECHNOLOGY



Telehealth, or telemedicine, is the remote diagnosis and treatment of patients through the use of information and telecommunications technology. There are a number of models for delivering health services in this fashion.

Wearable Sensors

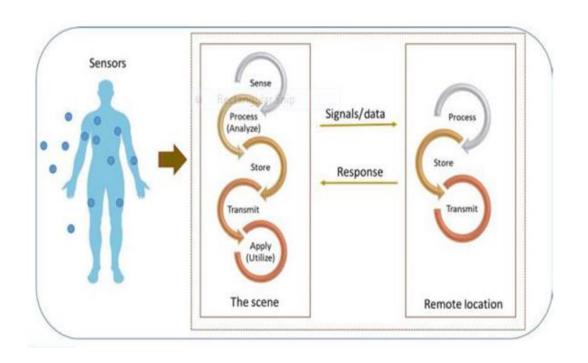


19BMO302/Wearable Technology /Introduction/Mr.S.Prince Samuel /AP/BME



## WEARABLE INERTIAL SENSORS





Vision Title



## ATTRIBUTES OF WEARABLES



A sensor is defined as "a device used to detect, locate, or quantify energy or matter, giving a signal for the detection of a physical or chemical property to which the device responds". Not all sensors are necessarily Vision III 2

We wearable, but all wearables, must have sensing capabilities.



## WHAT IS WEARABLE TECHNOLOGY



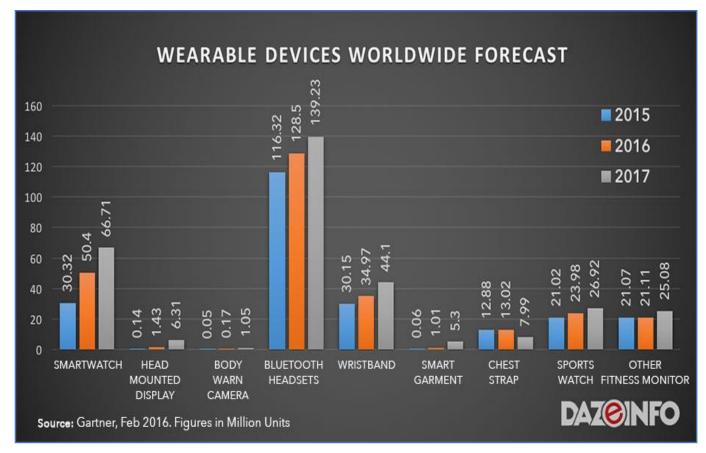
- Wearable technology (also called wearable gadgets) is a category of technology devices that can be worn by a consumer and often include tracking information related to health and fitness.
- Other **wearable tech** gadgets include devices that have small motion sensors to take photos and sync with your mobile devices



# IMPORTANCE OF WEARABLE TECHNOLOGY



- ➤ Wearables are compact
- > Smart
- High operational efficiencies
- ➤ Ubiquitous connectivity





# DESIGN ELEMENTS OF WEARABLE TECHNOLOGY



#### > HUMAN CENTERED DESIGN

This practice is critical to the success of wearable devices—design thinking must be embedded in disruptive strategy and innovation, with a focus on optimizing the customer experience.

#### > CONSISTENCY OF DATA

➤ The data from the wearable experience will need to be integrated more broadly in an interoperable ecosystem, rather than acting standalone.



## USES OF WEARABLE TECHNOLOGY



#### **HEALTH CARE**

Vision Tit 2

- Measures parameters like heart rate, body temperature etc
- > Improves medical diagnosis
- ➤ Health care costs reduced





### **USES OF WEARABLE TECHNOLOGY**







Smart glass combined with police database and facial recognition

Fitness tracking system combined with cloud based personal trainer service

