



# SNS COLLEGE OF TECHNOLOGY

## (AN AUTONOMOUS INSTITUTION)

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Accredited by NBA & Accredited by NAAC with 'A++' Grade,  
Recognized by UGC Saravanampatti (post), Coimbatore-641035.



## Department of Biomedical Engineering

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

**Topic : Introduction to Wearable Sensors**  
**Semester :6**

19BM0302/Wearable Technology /Introduction/Dr.S.Prince Samuel /AP/BME



# NEED FOR WEARABLE TECHNOLOGY

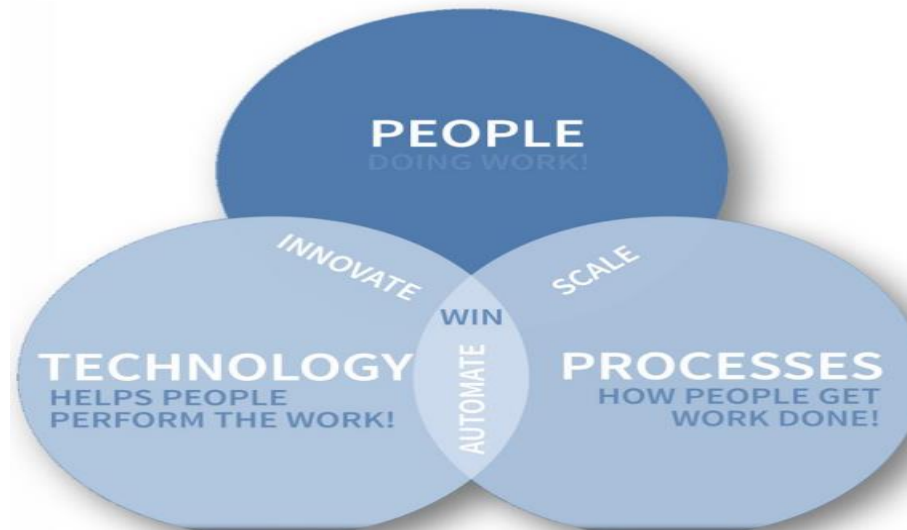


Telehealth, or telemedicine, is the remote diagnosis and treatment of patients through the use of information and telecommunications technology. There are a number of models for delivering health services in this fashion.

Vision Tit 2

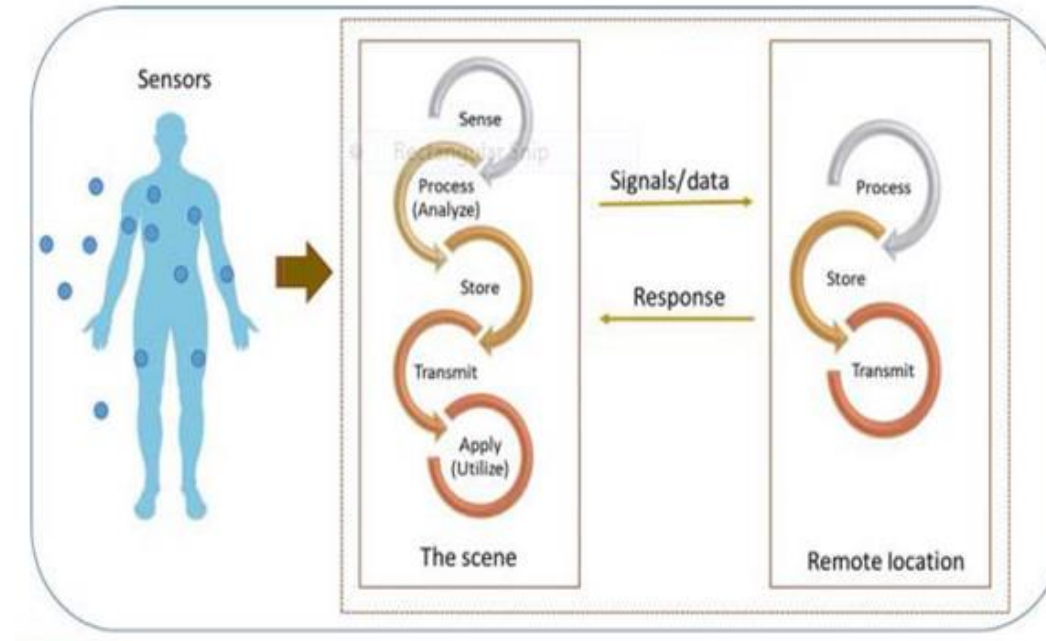
Vision Title 3

Wearable Sensors





# WEARABLE INERTIAL SENSORS



Vision Title 3



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

Vision Tit 2

Vision Title 3



# 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

Vision Tit 2

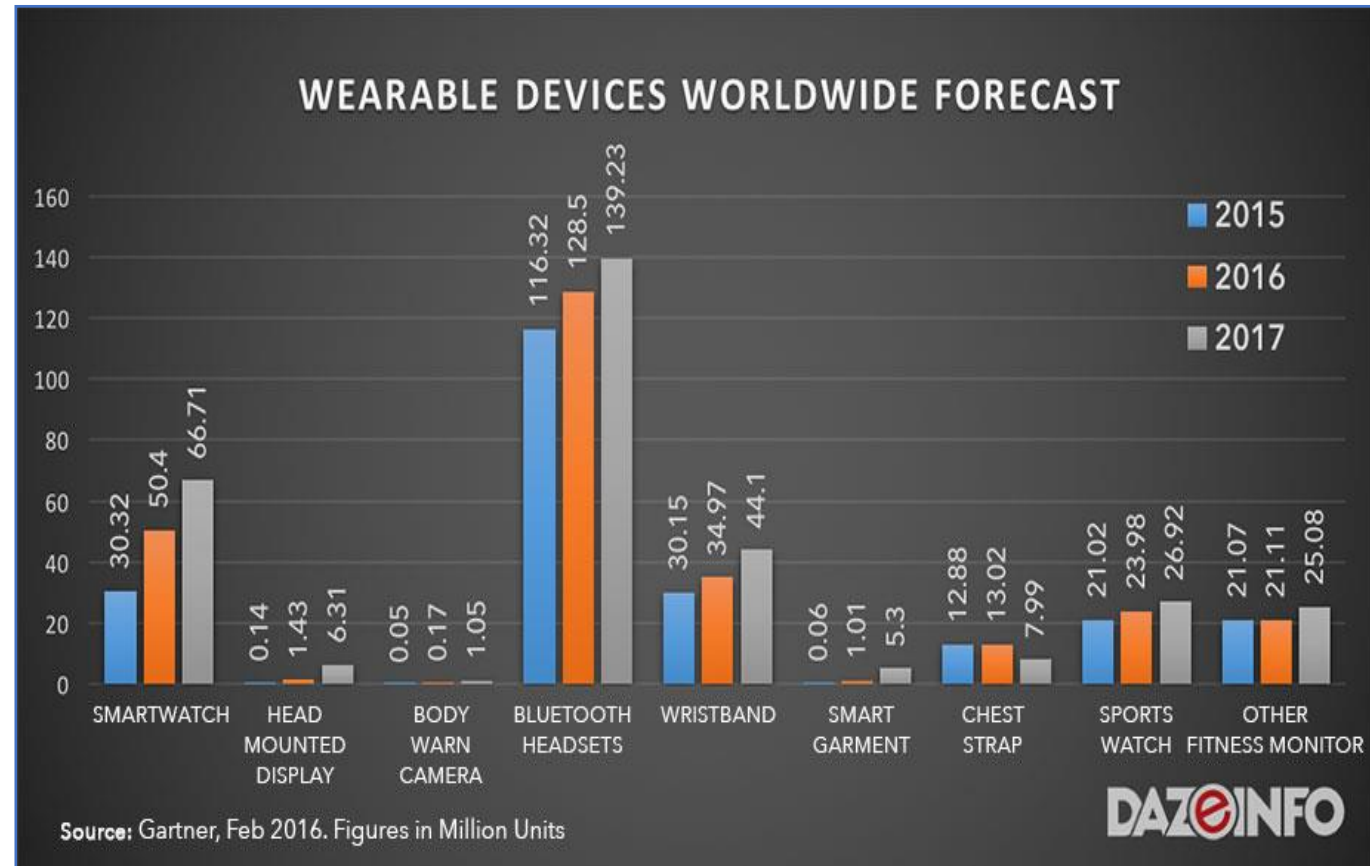
Vision Title 3



# 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

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

Vision Tit 2







# USES OF WEARABLE TECHNOLOGY



Smart glass combined with police database and facial recognition

Fitness tracking system combined with cloud based personal trainer service

A top-down view of a white card with 'Thank you' written in purple glitter calligraphy. The card is on a light grey marble surface. To the left is a bouquet of purple flowers. To the right is a black pen with a white polka-dot grip and a gift wrapped in white paper with a red and white striped ribbon. A spool of the same ribbon is in the top right corner.

Thank  
you