



# **SNS COLLEGE OF TECHNOLOGY**

## **(AN AUTONOMOUS INSTITUTION)**

Approved by AICTE & Affiliated to Anna University  
Accredited by NBA & Accredited by NAAC with 'A+' Grade,  
Recognized by UGC saravanampatti (post), Coimbatore-641035.



## **Department of Biomedical Engineering**

Vision Tit 2

Vision Title 3

**Course Name: 19BM0401 & TELEHEALTH TECHNOLOGY**

**IV Year : VII Semester**

**Unit I -TELEMEDICINE AND HEALTH**

**Topic :Evolution of Telemedicine**

19BM0401/Evolution of Telemedicine/Unit 1/Mr.S.Prince Samuel/AP/BME



# INTRODUCTION



*Telemedicine is defined as the use of telecommunications to deliver health care expert sharing of medical knowledge with persons at distant locations.*

- *Telemedicine has been defined in general terms to be medicine practiced at a distance and as such it encompasses both diagnosis and treatment, as well as medical education.*



# WEARABLE MEDICAL DEVICES



Medical data euah as:-

eHigh resolution Photography

kRadiological Imagea Sound and patient records.

Vision Tit 2

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4Electronic signals via the internet

+Intranet

kPersonal Computers (PLS)

eTelephone lines.



# SMARTPHONES AS DIAGNOSTIC TOOLS



- Under first international Telemedicine program In December 1986, the site of a massive earth quake in Armenia was linked to medical centers in united states for telemedicine Consultations.

The program was extended to Russia to provide telemedlcine consultation to bum victims altar a terrible train accident.

Vision Tit 2

Vision Title 3



# APPLICATIONS



Vision Title 3

- Emergency Healthcare
- Video consulting
- Telepathology
- Telecardiology
- Teledermatology
  - Teleophthamology
- Teleoncology
- Telepsychiatry
- Teledentistry
- Distance hearing
- Medical education and the transfer of medical data.
- Medical care delivery, diagnosis, Consultation and
  - treatment at a distance.
- Nursing homes or retirement centers
- Home monitoring for patients.
- Health care in the aftermath of disasters.

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# DIGITAL THERAPY AND ADVICE



- A Doctor or a paramedic or even a patient himself in remote area can have a consultation with a specialist.
- The use of Telemedicine technologies makes it much better. Doctors can attend clinical meetings at remote places and also participate and present cases in them. Some projects such as Health Met Project of Africa uses both internet and satellite communications for doctors in remote area.

Vision Tit 2

Vision Title 3

- Tele Consultation, video conferencing on surgery, online clinical audit and continuing medical education are just some of the education applications of tele education

## STORE AND FORWARD TECHNOLOGY

- In store and forward technology an event is captured as Single and stored. Then this single image or series of images along with voice, text and data are forwarded to specialist through e-mail or modem. This store and forward technology is commonly used in radiology, pathology, and dermatology. Most common use of store and forward technology.