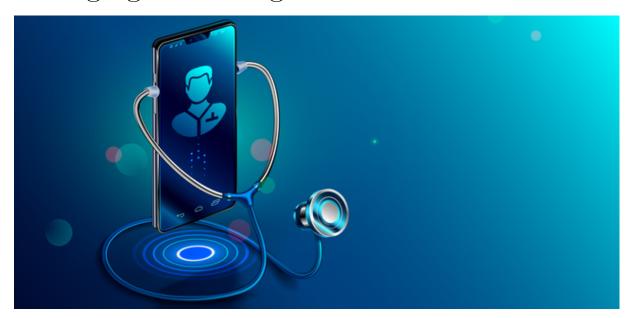# Basic Biomedical Assignment-V
# Emerging Technologies in Healthcare

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# Emerging Technologies in Healthcare:



We do not know what new technologies we are going to discover but we can surely hope for the innovative application of some present technologies in the domain of healthcare and we can improve it for better serving.

At present time the technologies related to IT sector seems to have huge potential application in healthcare.

Few of them are:

1.Vocal Biomarkers

2.Artificial Intelligence

3.Remote Monitoring

4.Nanotechnology

5.Cloud Computing

# 1 Vocal Biomarkers:

Disease can affect person's lung, heart and muscles which can alter his/her voice and with proper analysis of vocal data we can detect abnormality in health.
a vocal biomarker is a signature, a feature, or a combination of features from the audio signal of the voice that is associated with a clinical outcome and can be used to monitor patients, diagnose a condition, or grade the severity or the stages of a disease or for drug development.

Its core process could be:
Collect vocal data——Process data to remove noise——Analyse the data (Machine learning + Artificial Intelligence)——Get result
This technology can be used to reduse cost of diffrent sensors and it will be easy to use.

# 2 Artificial Intelligence:

Use of Artificial Intelligence has already started in various ways and as the technology improves more its potential application in healthcare doesn't seem to have limit.
In the coming year we can expect AI bringing revolution in healthcare with its applicaton like:
AI Robot Surgery: It is another area that is being explored to help with everything from minimal invasive process to open heart surgery. Working with doctors, robots have already been able to carry out complex procedures successfully with precisions flexibility, and control that goes beyond human capabilities.

# 3 Remote Monitoring:

Physicians can now know what is going on with a patient without physically being close. There are several benefits to remote monitoring including better patient outcomes, faster response time, and significant cost reductions over time.

Physicians may watch and diagnose patients from afar, speaking with them about symptoms and even seeing medical issues in order to make an informed decision on medication or surgery without even being there in the room or state.

# 4    Nanotechnology:

The technology to understand the science at very micro level holds enormous potential for healthcare, from delivering drugs more effectively, diagnosing diseases more rapidly and sensitively, and delivering vaccines via aerosols and patches.
With the advancement in this technology we are trying to do 3-D bioprinting of tissues and lot more.

# 5    Cloud Computing:

AI and machine learning needs very complex calculations whih need good machines and it is not feasible to have big CPUs to every hospital and this problem could easily be solved using cloud computing which take data from clinics and process at a cemtralised system and send the result.
There is a huge scope to use this technology to improve healthcare like we can use it for advance analytics, active colaboration, etc.