ASSIGNMENT-5

"Two page write-up on emerging technologies in healthcare"

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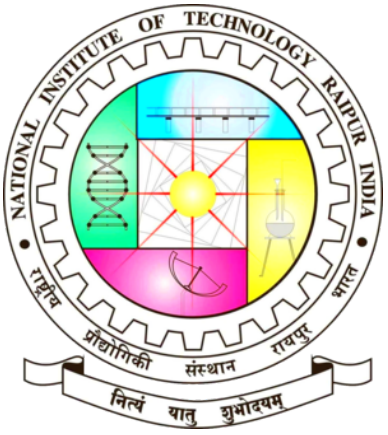

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Contents

Abstract

The world is rapidly turning toward technological advancements nd inventions. Science and technology have change dramatically in the twenty-first century. We hear about a new idea or innovation almost every day. The most fascinating aspect of this relationship is that each new technology is a master of its preceding incarnation.

Artificial intelligence has simplified everything, whether it's in shopping, education, or healthcare. Healthcare facilities have been gradually improving in recent years. Even at the time of the epidemic, COVID-19, healthcare had undergone significant changes around the world. SCIENCE is the driving force behind this endeavour.

1 What is the importance of innovation and technology in healthcare?

The advancement of technology not only modernises an individual's global position, but also makes our lives easier. Medical science has enhanced world health more than ever before. Drugs and medicines are now available to everyone thanks to e-Pharmacy.

Scientists were able to better understand the human brain and its activities thanks to the concept of artificial intelligence. Long lines at hospital receptions have been replaced by online consultation options.

3D medicine printers have produced some effective life-saving medications. Nanomedicines, robotics, bioprinting, and other technologies have all contributed to the development of healthcare.

2 What are the emerging technologies in healthcare?

2.1 3D bioprinting

Bioprinting is a more advanced form of 3D printing. Bioprinting allows scientists to create tissues, bones, and blood arteries, among other things. Even scientists believe that 3D bioprinting has allowed them to create an entire organ. For medical students and trainees, this technology is a boon. This will assist to avoid the use of animals in clinical and pharmaceutical investigations in the future.

In addition, if scientists are successful in fully replicating the original human organ, it might be employed in transplant therapies. One of the branches of this application is Sprintam, which has been approved by the FDA.

2.2 Nanomedicines

This branch is concerned with the application of nanotechnology to medicine. Nanomedicines, also known as "future medicine," promise to speed up drug delivery. These drugs are used to treat tumours and cancer in particular.

Nanomedicines are distinguished from conventional tools by their unique optical, magnetic, and radical properties. They are currently used to detect the existence of cancers within the human body.

Nanomedicines encompasses not only pharmaceuticals but also the use of nanomaterials and biological devices in healthcare.

This application is now seeking ideas and breakthroughs from researchers all over the world. You can simply apply for your journal if you have an idea that you believe will mark excellence in Nanomedicines.

2.3 Cloud computing

Cloud computing aids in the analysis and organisation of a patient's information. It also promotes the patient's involvement in decision-making and empowers him to take charge of his own health.

Cloud computing has met the needs of the healthcare sector with features such as post-hospitalization plans, virtual medication, consultants, telemedicine, and more.

Cloud computing not only keeps a specific set of data safe, but it also aids in the organisation of worldwide data. Statistics and data from the world's best hospitals are transmitted to a prominent research centre for analysis of health indices, common diseases, causative agents, and other factors.

2.4 Digital health trackers

The emergence of gadgets like step counts, blood pressure monitors, and respiratory rate monitors is a revolution in the healthcare industry. Even on a

regular morning, we may witness a group of individuals jogging in the park while wearing the latest wristwatch and counting their steps.

Many such tracker apps are also accessible on Google Play and the Apple App Store. It raised public awareness about health and fitness in the community. It also served as a first-aid treatment for modest body rate abnormalities.

2.5 e-Pharmacy

Drugs and medicines are now available even in remote areas thanks to the emergence of e-Pharmacy stores. PharmEasy and Netmeds, for example, are applications that not only assist in the discovery of vital pharmaceuticals but also provide a time-saving strategy.

If your loved one becomes unwell, you may decide whether you would want to spend your time wandering around looking for drugs for him or caring for him by downloading the prescription online.You'll opt for the second option, right?

2.6 Online consulting services

Services such as Practo, Mfine, Tata Health, and others have made doctors available to patients at all hours of the day. This technique is beneficial to busy patients and those who do not want to queue for long periods of time. Tata Health, according to statistics, is the market leader in this area.

2.7 Artificial intelligence

In healthcare, artificial intelligence aids in the identification of the human brain and the analysis of its algorithm.

For retinal analysis, a London hospital is employing artificial intelligence. It also aids scientists in the research of pre-clinical medication effects, allowing for more precise drug discovery and development. Artificial intelligence has been used in cardiology, neurology, and other fields of medicine.