

NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR



BIOMEDICAL ENGINEERING ASSIGNMENT

Emerging Technologies in Healthcare

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EMERGING TECHNOLOGY IN HEALTHCARE

Virtual Concierge

A virtual concierge can perform many of the tasks in-person, from answering emails and phone calls and scheduling appointments and events to responding to complaints and requests and even handling payments. Our front door solution is an excellent example of the many applications that virtual concierge has. Their flagship software is an AI care navigation assistant that helps patients find a clinic or physician, answers questions, schedules appointments, and even screens for COVID-19 symptoms. Healthcare facilities benefit from enhanced remote access capabilities, improved patient satisfaction, and better healthcare utilization.

Artificial Intelligence

With the potential to radically transform healthcare, artificial intelligence can help professionals make better judgments and reduce human error and the risk of preventable scenarios. From radiology tools and immunotherapy for cancer patients to identifying infectious disease patterns, advanced technology helps develop more efficient and precise interventions. As learning algorithms evolve and become more accurate, they are likely to significantly impact healthcare services, including diagnostic approaches, treatments, and care processes

Virtual Reality

Also an emerging technology in healthcare, virtual reality (VR) is an innovative tool with many applications, from teaching autistic children communication and social skills to engaging patients in activities and games for rehabilitation purposes.

VR solutions can manage hot flashes through cognitive behavioral therapy and relieve pain through meditation training.

Mobile Apps

Relatively new technology in healthcare, mobile applications can upload patients' medical records, check in, schedule appointments, and provide expert advice. A host of different mobile apps now helps physicians with patient monitoring and management, information gathering, consulting, and health record access and maintenance.

Mobile applications designed for patient use feature a host of handy functionalities, from pill and care reminders and appointment management to selecting a physician and remote medical assistance. When selecting a healthcare provider, patients can check their hospital location, consultation fees, visiting hours, and specialty

Robotics

The field of robotics has made great strides as well, making it a top healthcare tech trend. Medical robots can help surgeons perform very precise and targeted procedures and therapies. Though the doctors still control the surgery, robots take away the possibility of human errors and can potentially reduce infections. Healthcare robots are also poised to take over clerical and routine tasks to free up nursing and other healthcare professionals to focus more on direct patient care

3D Bioprinting

The invention of 3D printing is another new technology in the healthcare industry that is proving to be transformative. This new field of 3D Bioprinting enables physicians to print artificial limbs, organs, joint replacement parts, and bio tissues. In addition, in the field of pharmacology, there are ongoing experiments for printing pills and other medications. Lastly, 3D printers can also help create medical devices and surgical tools.