THE EXPERT SESSION REPORT

(PGDHM 2024 – 2025)

Role of Telemedicine Services, Artificial Intelligence, and Robotics in Healthcare

GRADUATE SCHOOL OF MANAGEMENT STUDIES

GUJARAT TECHNOLOGICAL UNIVERSITY

DATE: 27th APRIL 2025 – SUNDAY

On **27th April 2025**, GSMS, GTU hosted a highly informative expert session led by

Dr. Bhavin Parikh, focusing on the cutting-edge integration of **Telemedicine**, **Artificial Intelligence (AI)**, and **Robotics** in healthcare. The session was organized for the students of the **Post Graduate Diploma in Hospital Management (PGDHM)** and emphasized how emerging technologies are reshaping hospital services, enhancing care delivery, and streamlining operations.

Dr. Parikh began by emphasizing the revolutionary impact of **telemedicine**, especially in the wake of the COVID-19 pandemic. He described how telemedicine bridges the urban-rural divide by offering virtual healthcare consultations, follow-ups, and chronic disease management.

Key Takeaways:

- Facilitates remote consultation, diagnosis, and treatment.
- Reduces patient load in OPDs and emergency departments.
- Enhances patient engagement and follow-up adherence.
- Enables remote ICU monitoring and mental health services.

Dr. Parikh explained how **AI is transforming clinical and administrative processes** in healthcare. Using real-life examples, he demonstrated how AI algorithms assist in early diagnosis, treatment planning, and hospital workflow optimization.

Key Applications:

- AI-powered radiology and pathology image interpretation.
- Predictive analytics for ICU admission and readmission risks.
- Automation in patient record management and billing.
- Virtual assistants for patient queries and appointment bookings.

Challenges:

- Data security and privacy.
- Bias in training algorithms.
- Regulatory limitations and ethical concerns.

Robotics in Healthcare

Robotics in healthcare was one of the session's most engaging topics. Dr. Parikh introduced students to **surgical robots, rehabilitation robots, and hospital service robots**. He presented case studies showing how robotics reduces human error, improves surgical precision, and enhances patient safety.

Use Cases:

- Robotic-assisted surgeries (e.g., orthopedic and urological surgeries).
- Autonomous robots for hospital logistics (medication, linens, waste).
- Disinfection robots using UV technology post-COVID.
- Elder care and mobility-assistive robots.

Student Engagement and Case Discussion

Dr. Parikh encouraged students to discuss implementation challenges, especially in the Indian context where **infrastructure limitations** and **cost constraints** may act as barriers. The students actively engaged in case-based analysis and group discussions about:

- Feasibility of integrating AI tools in mid-size hospitals.
- Legal and ethical considerations of robotic surgeries.
- Pilot project ideas for telemedicine in rural Gujarat.

In conclusion The expert session delivered by **Dr. Bhavin Parikh** was highly enriching and offered PGDHM students a comprehensive view of how **technology is not just supporting but redefining modern healthcare delivery**. It emphasized that the **future hospital administrator** must be technologically literate, ethically aware, and strategically oriented to lead innovation in healthcare.

This session was truly inspiring for students of PGDHM and GSMS, GTU will plan to arrange such more expert sessions for the students.