



School of Telemedicine & Biomedical Informatics Sanjay Gandhi Post Graduate Institute of Medical Sciences www.stbmi.ac.in

# Journey of Last Two Decades

### Introduction

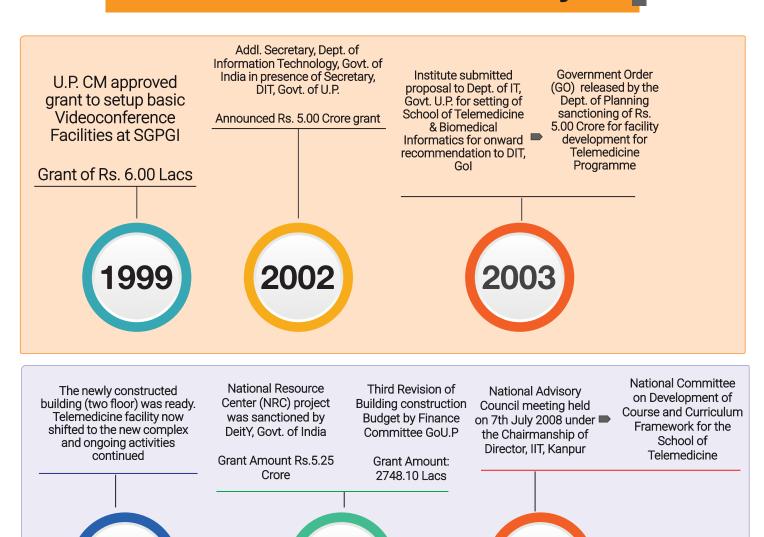
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Institute of Medical Sciences (SGPGIMS), Lucknow with the financial support of the Government of Uttar Pradesh and the Department of Information Technology, Ministry of Communication & IT, Government of India with the objective of creating human resources in various fields of Healthcare Information Technology e.g. Telemedicine, Hospital Information Management System, Public Health Informatics, Nursing Informatics, Digital Medical Library, Medical Multimedia & Animation, Bioinformatics, Medical Imaging Informatics, Cancer Informatics, Artificial Intelligence & Clinical Decision support system in Medicine, e-learning in Medicine, Surgical Informatics, Virtual Reality & Medical Simulation etc. This is the first academic institution of it's kind dedicated exclusively to the emerging arena of health care informatics in a public funded academic medical institutional setup.

Telemedicine activities at SGPGIMS were initiated in the year 1999 in the form of testing the concept of information and communication technology in the field of medicine. Telemedicine, as defined by WHO, is delivery of healthcare services, where distance is a critical factor, by all healthcare professionals using information and communication technology for exchange of valid information for diagnosis, treatment and prevention of diseases and injuries, research and evaluation, and for continuing education of healthcare providers, all in the interests of advancing the health of individuals and their communities.



### **Milestones of STBMI Journey**





2009

42nd Academic Board meeting held on 2nd May 2009.

AB approved starting of diploma course in five disciplines

Facilitated Govt. of U.P. for implementation of UP Medical College Telemedicine Network



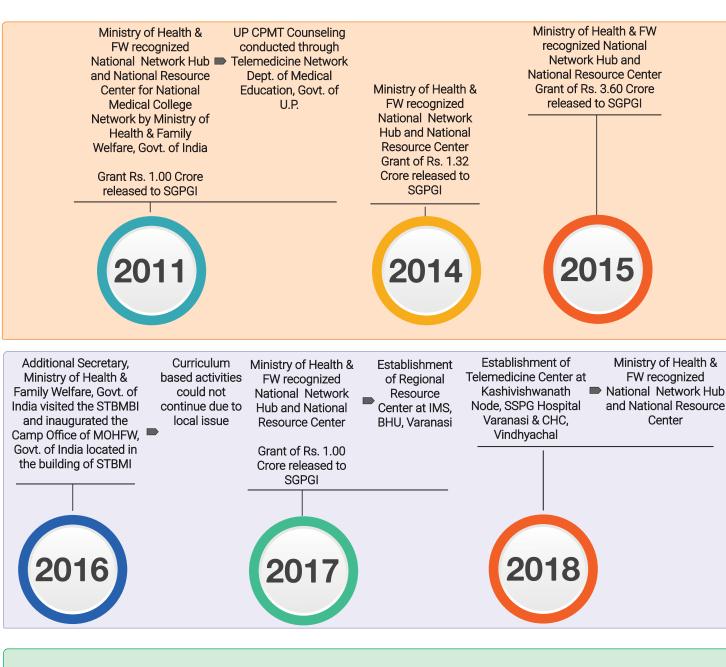


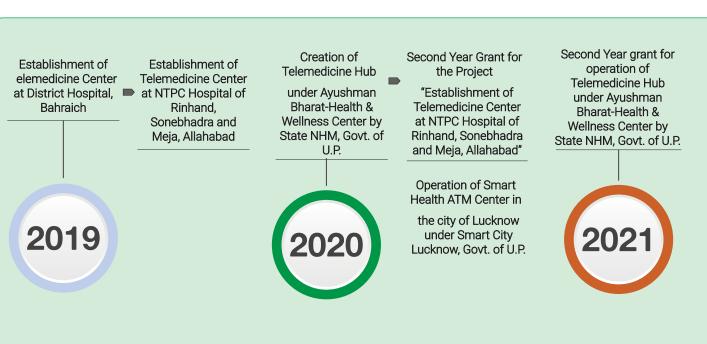
Proposal for National Medical College Telemedicine Network (NMCN)- centrally sponsored scheme under eHealth

EFC Meeting approved NMCN under Centrally sponsored schemes on e-Health Initiatives including Telemedicine during 11th Five year Plan

The SFC recommended the proposal for establishing National Medical College Network for Rs. 60 crores with the following observations;

### **Milestones of STBMI Journey**





### **Projects Completed**

#### **Endocrine Telesurvey** Workshop

Year Started: 25th October 1999

Year Completed : 29th October 1999 (05 Days)

#### **Funding / Collaborating Agency**

ITI & Lucknow Telecom Dept.

#### **Project outlay**

Sponsor

#### Implemented / Executed

Proof of concept on transferring live surgery to remote Institutions.

#### **Outcome of Project**

live surgery transmitted successfully with the high quality of transmission of data, image and voice

#### **Application of telemedicine** technology to provide tele- health care during Mela / Festival & Disaster

Year Started: January 2001 Year Completed: February 2001

#### **Funding / Collaborating Agency**

Ministry of Electronics and Information Technology (MeitY)

#### **Project outlay**

Rs. 80 Lakhs

#### Implemented / Executed

Proof of concept on exchange of medical records using integrated telemedicine network build over ISDN

#### **Outcome of Project**

Successful transfer of Image in real time & store and

#### **Prevalence of Iodine Deficiency** and Goiter in Post Iodization Phase in Gonda District

Year Started: May 2016 Year Completed: 2018

#### Funding / Collaborating Agency

National Thermal Power Corporation (NTPC) Under **CSR Project** 

#### **Project outlay**

Rs. 3.00 Lakh

#### Implemented / Executed

Field Project using mobile telemedicine bus with lab test of primary school children.

#### **Outcome of Project**

Research study on Iodine deficiency

#### **Pilot Project for Tele-education** using video conferencing

Year Started: January 2000 Year Completed : December 2000

#### **Funding / Collaborating Agency**

Uttar Pradesh Chief M Grant

#### **Project outlay**

Rs.06 Lakhs

#### Implemented / Executed

Tele- Education Endocrine Imaging & Endocrine Pathology with PGIMER Chandigarh

#### **Outcome of Project**

Successful

#### **SATCOM Orissa Telemedicine Network Project**

Year Started: March 2003 Year Completed : October 2018

#### **Funding / Collaborating Agency**

Indian Space Research Organization (ISRO)

#### **Project outlay**

Rs.20 Lakhs Approx. Bandwidth cost supported by ISRO

Tele-education & Consultation for the three medical colleges of Odisha state using satellite communication

Infrastructure created for Tele-education & Tele-

#### **Uttar Pradesh Medical College Telemedicine Network**

Year Started: 2010 2011 **Year Completed:** 

#### Funding / Collaborating Agency

Dept. of Medical Education Govt. of U.P.

#### **Project outlay**

Sponsored by Govt. of U.P

#### Implemented / Executed

Establishment of Telemedicine network in three medical colleges (Allahabad, Meerut & Kanpur)Uttar Pradesh for practicing telemedicine application & eHealth activity

Design a Videoconferencing Suit and Tele-Health Studio at Medical Colleges and Digital Library (Total

### **Projects Completed**

### SGPGIMS- District Hospital Raibareli Telemedicine Network

Year Started: 2006 Project outlay
Year Completed: 2019 Rs.40 Lakhs

#### **Funding / Collaborating Agency**

Gas Authority of India Limited (GAIL) Under CSR programme of GAIL India followed by SGPGI

#### Implemented / Executed

Tele-education & Tele-health care for the peripheral doctors

#### **Outcome of Project**

Infrastructure created for Tele-consultation & Tele-CME (Total Sessions is 452)

#### **SAARC Telemedicine Project**

Year Started: 2008 Year Completed: 2018

#### **Funding / Collaborating Agency**

Govt. of India, Ministry of External Affairs

#### **Project outlay**

Rs.28.00 Lakh

#### Implemented / Executed

Bhutan, Nepal & Afghanistan countries connected through Telemedicine network for tele-health and tele-educational exchange.

#### **Outcome of Project**

Total Sessions is 307

### Establishment of Telemedicine Center at NTPC Hospitals located at Rihand & Meja

Year Started : June,2019
Year Completed : Ongoing

#### Funding / Collaborating Agency

National Thermal Power Corporation (NTPC) under CSR

#### Project outlay

Rs. 49.90 Lakhs

#### Implemented / Executed

Establishment of Telemedicine Health care center focusing on main aspects like telemedicine consultation & follow-ups, tele-education etc using Telemedicine kiosk

#### Outcome of Project

irst Exp. Of deploying Telemedicine kiosk using Broad Band Total 283 patients benefitted

#### UP Tele-radiotherapy Network

Year Started: 2007 Year Completed: 2010

#### Funding / Collaborating Agency

Dept. of Science and Technology

#### **Project outlay**

Executed by Radiotherapy Dept., SGPGI

#### Implemented / Executed

Pilot Project -Tele-education & tele-consultation in the field of Radiotherapy to the 5 Medical Colleges of Uttar Pradesh

#### **Outcome of Project**

Infrastructure created for Tele-education & Teleconsultation in (Total Sessions is 589 till 2019)

#### Dev. & Maintenance of e-seminar Web Portal on "National Knowledge base on Telemedicine & e-Health"

Year Started: April 2007 Year Completed: April 2009

#### **Funding / Collaborating Agency**

Sony, Japan

#### **Project outlay**

Rs.10 Lakh

#### Implemented / Executed

Creation of single window web portal to act as a knowledge base on telemedicine and e-health in India

#### **Outcome of Project**

Web Portal http://telemedindia.org is created

#### **Tele-ophthalmology Project**

Year Started : October 2008 Year Completed : August 2011

#### **Funding / Collaborating Agency**

MOH &FW, Govt. of India

#### **Project outlay**

Rs. 28 Lakh

#### Implemented / Executed

Screening and treatment planning for Cataract, Diabetic retinopathy, Glaucoma, refraction error including other eye diseases and post-operative care, tele-follow-up, Tele-consultation through Tele-ophthalmology center at CHC, Bhacharawan "Uttar Pradesh

#### **Outcome of Project**

Total 2719 patients benefitted.

### **Projects Completed**

#### Pan Africa Telemedicine Network

Year Completed: 2017

Funding / Collaborating Agency

Govt. of India, Ministry of External Affairs

**Project outlay** 

Sponsored by Ministry of External Affairs Govt. of India

Implemented / Executed

SGPGIMS is one of the Twelve super-specialty hospitals in India connected through Telemedicine of 47 African Union countries

**Outcome of Project** 

To help African countries in Capacity Building by way of imparting quality in Tele education Total Session is 532

## **Projects On-Going**

#### **National Medical College Network** (NMCN)

December 2011 Year Completed : Ongoing

**Funding / Collaborating Agency** 

Ministry of Health & Family Welfare, Govt. of India

Project outlay

Rs. 1208.00 Lakh

(Total Grand Received from 2011 to 2020)

Implemented / Executed

Grant-in-Aid to undertake awareness activities and maintaining the existing infrastructure and activities of National Resource Center (NRC), SGPGIMS, Lucknow

**Outcome of Project** 

- Learning Center, SGPGI
   Lestablishment of Regional Resource Center for Telemedicine (RRC-East) at IMS, BHU
   Setablishment of Telemedicine at Kashi Vishwanath Node
   Lestablishment of Telemedicine at Oth, Vindhyachal, Mirzapur
   Total Content Created=956, Total Sessions=2994

#### **Establishment of Telemedicine Hub at** SGPGI under Ayushman Bharat-Health & Wellness Center (AB-HWC)

Year Started: Year Completed: Ongoing

**Funding / Collaborating Agency** 

National Health Mission (NHM), Govt. of Uttar Pradesh

**Project outlay** 

Rs. 51.00 Lakhs

Implemented / Executed

Creating Telemedicine HUB consisting a specialist team of doctor's providing consultation to all sub center and PHC through CDAC esanjeevani software.

**Outcome of Project** 

Total 10,8848 patients benefitted till date

#### **Mobile Oncology Telemedicine Bus**

Year Started: Feburary 2013 Year Completed : Ongoing

Funding / Collaborating Agency

Dr. K L Garg Memorial Charitable Trust, Lucknow

Project outlay 82 Lakh (CAPEX), 12 Lakh (OPEX) each year Total= 8 Yrs =96.00 Lakhs

Implemented / Executed

Telemedicine over wheel for Rural community outreach

programme

**Outcome of Project** 

Total 19363 patients benefitted.

#### **Establishment of Telemedicine Hub** under Smart City Lucknow Limited, Govt. of U.P

Year Started : Feburary 2021 Year Completed : Yet to start

Funding / Collaborating Agency

Lucknow Smart City Limited (LSCL), Govt. of Uttar Pradesh

Sponsored by Smart City, Lucknow

Implemented / Executed

Smart Health ATM center is to be opened across the city of Lucknow under Smart City and STBMI, SGPGI, Lucknow have been identified as HUB for supporting this initiative in terms of technical consultancy and facilitating doctors consultation (General & Specialist)

# Hon'ble Health Minister Shri Mansukh Mandaviya ji & State Health Minister Shri Brijesh Pathak Ji with Padamshri Radha Krishan Dhiman, Director SGPGIMS, Lucknow at STBMI

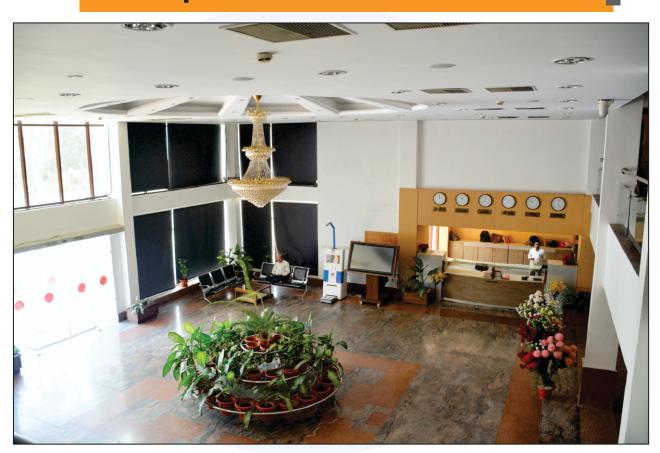




# **STBMI 4 story Building**



# Reception



# Telemedicine Hi Tech Lecture Theater



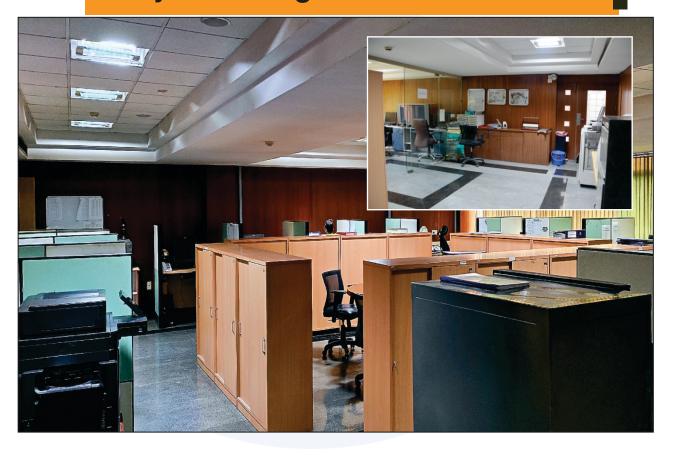
**Surgical Telepresence Suite** 



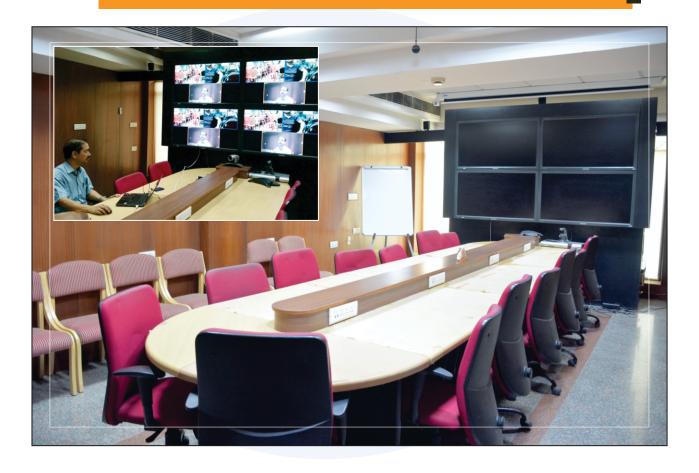
# **Dry Lab Discussion Room**



# **Project Management Unit**



# **Video Confrencing Suite - I**



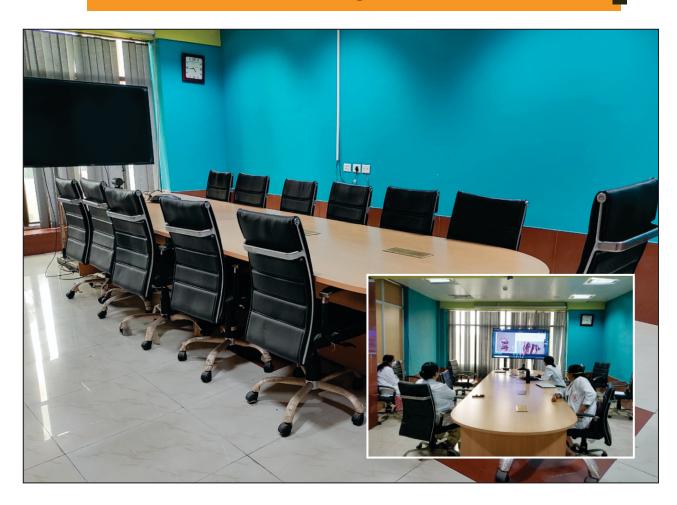
# **Video Confrencing Suite - II**



# **Video Confrencing Suite - III**



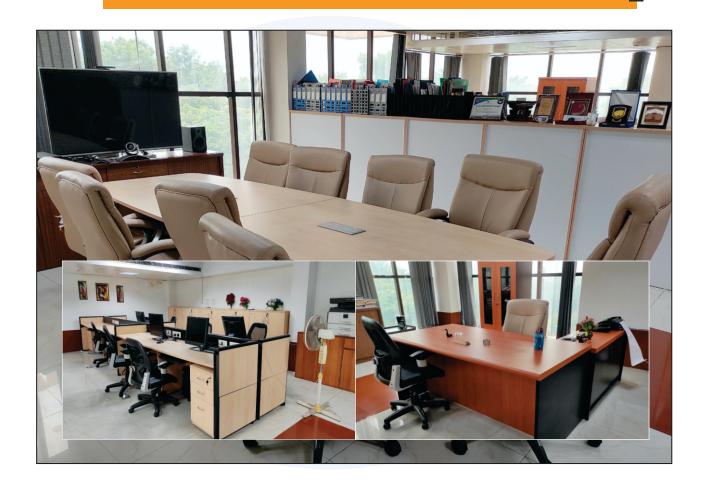
# **Video Confrencing Suite - IV**



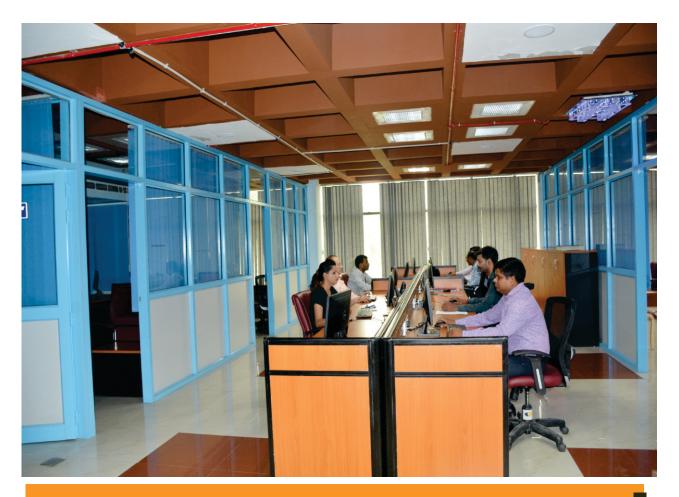
# **Clinical Decision Support System**



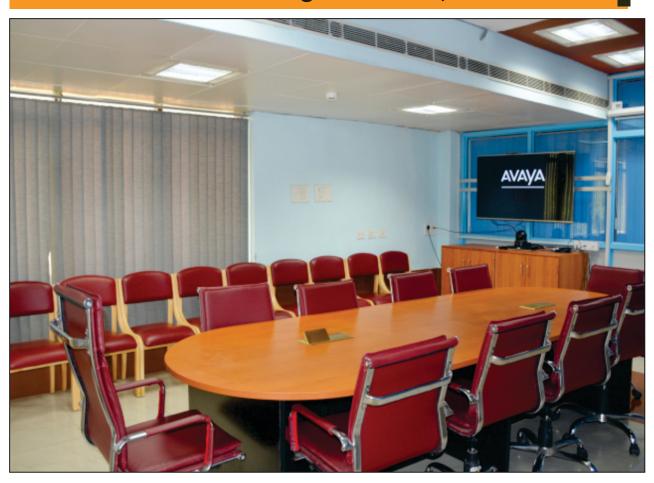
# **International Collaboration**



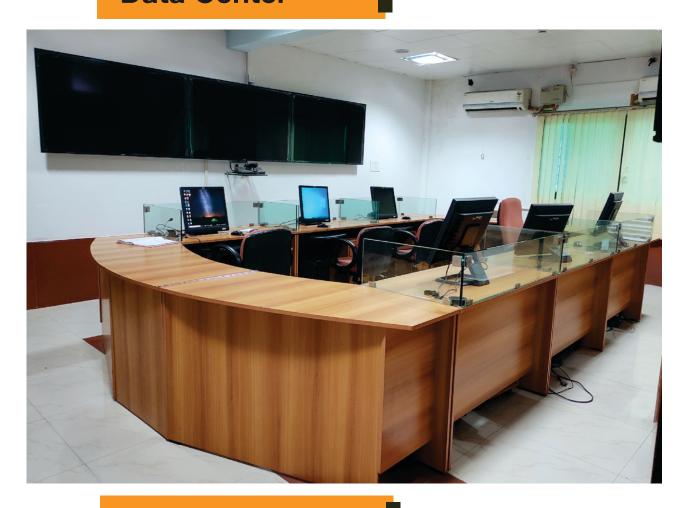
# **National Medical College Network**



## National Medical College Network, Board Room



# **Data Center**



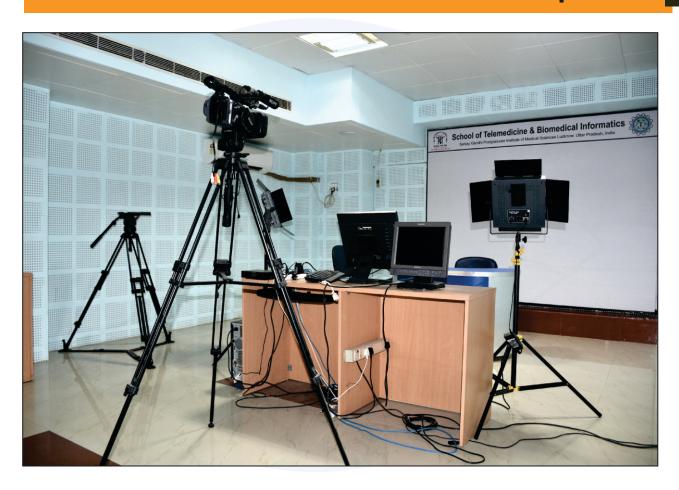
## **Data Center**



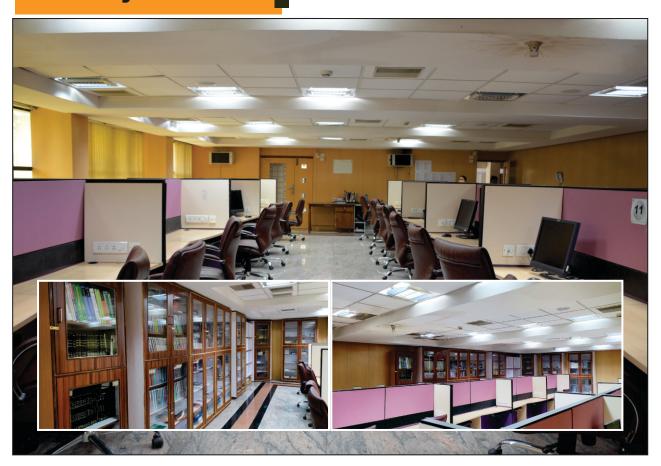
### **Content Development Lab**



# **Studio for Education Content Development**



# Library



# Ongoing Telemedicine Session



# Ongoing Tele-Education Session with Other Medical Institutions



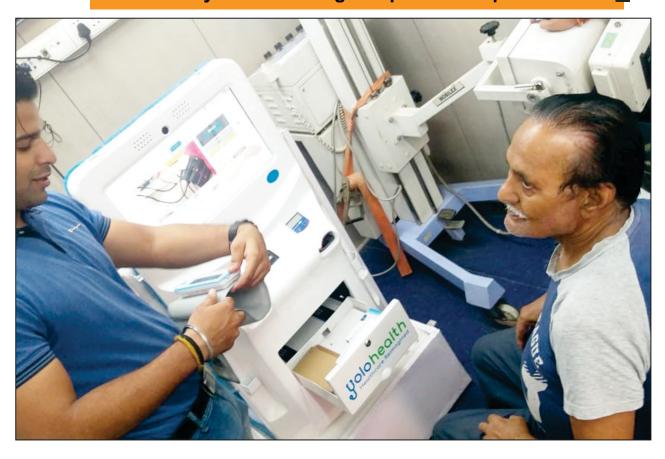
Ongoing Tele-Education Session with Other Medical Institutions



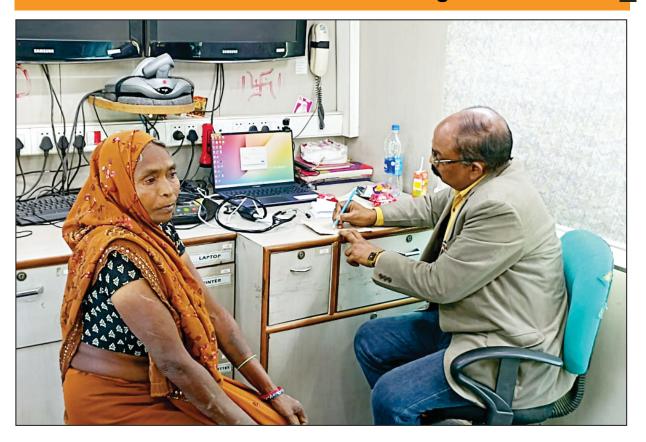
# Demonstration of Health Kiosk in Mobile Telemedicine System in during camp at IIT Kanpur1



### Demonstration of Health Kiosk in Mobile Telemedicine System in during camp at IIT Kanpur



# Patient inside mobile Telemedicine Bus during one of the Rural Outreach Programme



# STBMI Team during Mobile Telemedicine Bus conducted under NMCN Scheme



# **Director SGPGI Connected with COVID Advisory Committee of UP**



# Gastrosurgery Session with AIMS Cochin & other medical colleges



### **Tele Evidence**



### **Telefollowup of Nuclear Medicine**



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