Information Technology Cell,

King George's Medical University, UP, Lucknow

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Dr. Richa Khanna
(Member Secretary)
IT Cell

Profile

Establishment

- Established first as Data centre in 2011.
- "IT Cell" formation in 2016.

Vision

- To develop a "Technology Support System" for KGMU complying to its vision, mission and objectives.

Mission

- To integrate technology to achieve deliverables of patient care, education and research

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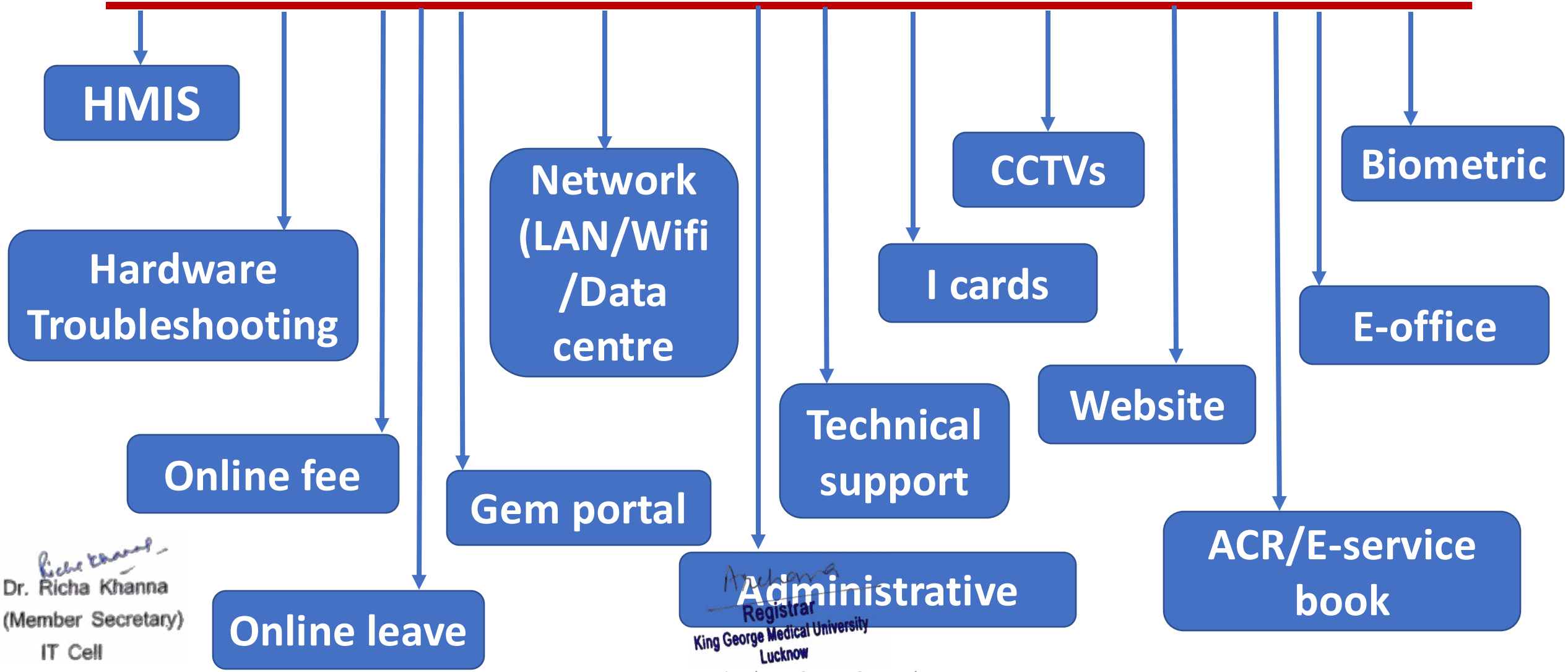
Organogram- IT cell- Different verticals



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IT Cell- Five year reforms

In compliance with
"Sustainable Development Goals"

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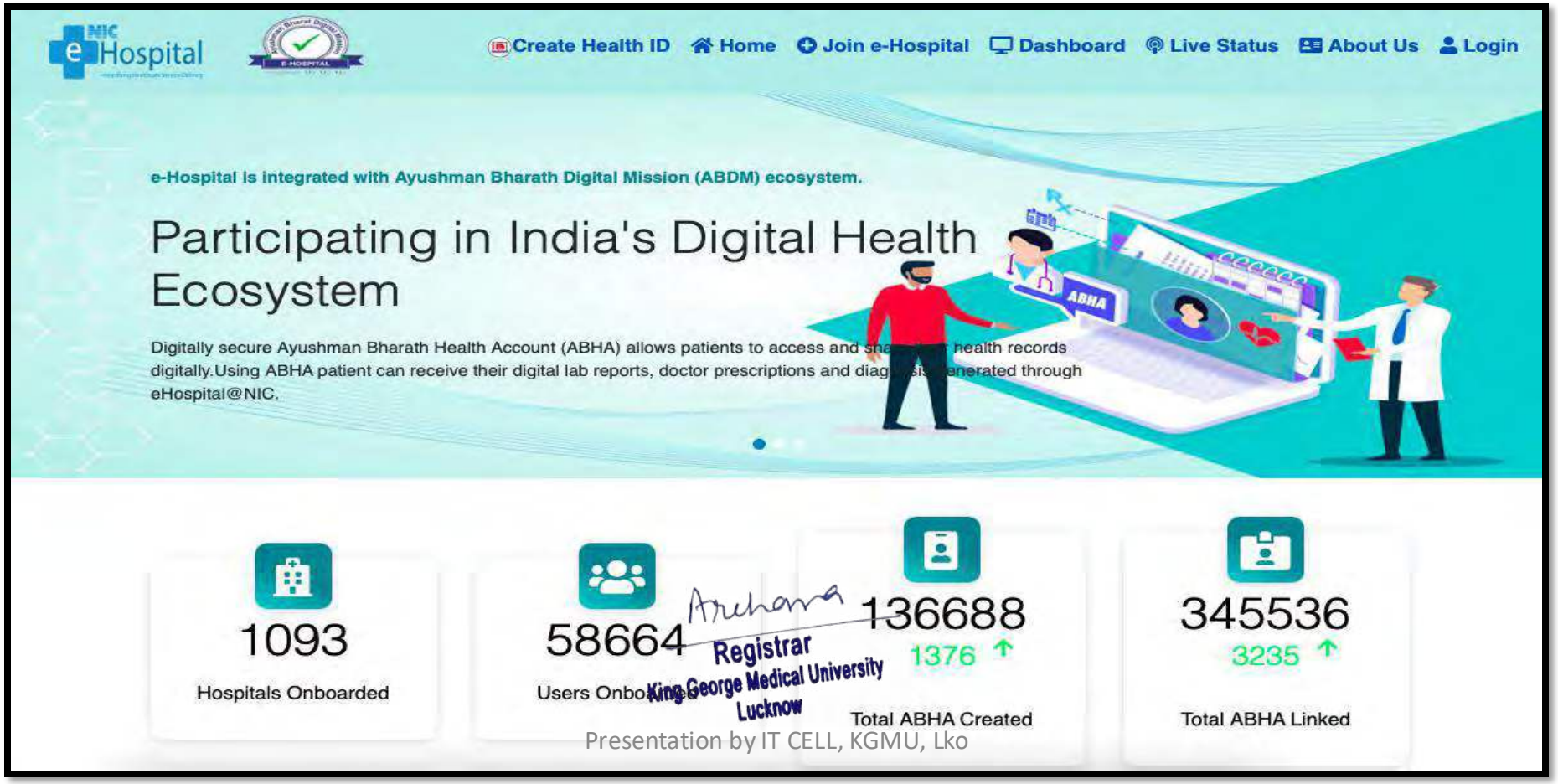
Implementation of Hospital Information System

Hospital Information system (e-hospital) was introduced in the year 2017.



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Implementation of Hospital Information System

Following is the chronology of events of various modules introduced. Each module is a reform in itself:

Name of module	Date of starting	Status
Patient registration	September 2017	Working
Billing/Accounts	October 2017	Working
Emergency registration	January 2018	Working
ADT	January 2018	Working
Pharmacy/Store	March 2018	Working
Scheme based billing	July 2019	Working
ORS	October 2020	Working
LIS –Pathology	December 2020	Working

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Implementation of Hospital Information System

Name of module	Date of starting	Status
Dietary	July 2021	Working
Blood bank	March 2021	Pilot testing with Shatabdi and UED
Laundry	2021-22	Training/Implementation phase
LIS-Microbiology	August 2021	Working
OT	2022	Testing and configuration phase
Advance module	January 2022	For minimizing cash transactions
IPD prescription	July 2022	Trauma centre, Medicine, QMH
RIS	October 2022	Partial Service scheduling done

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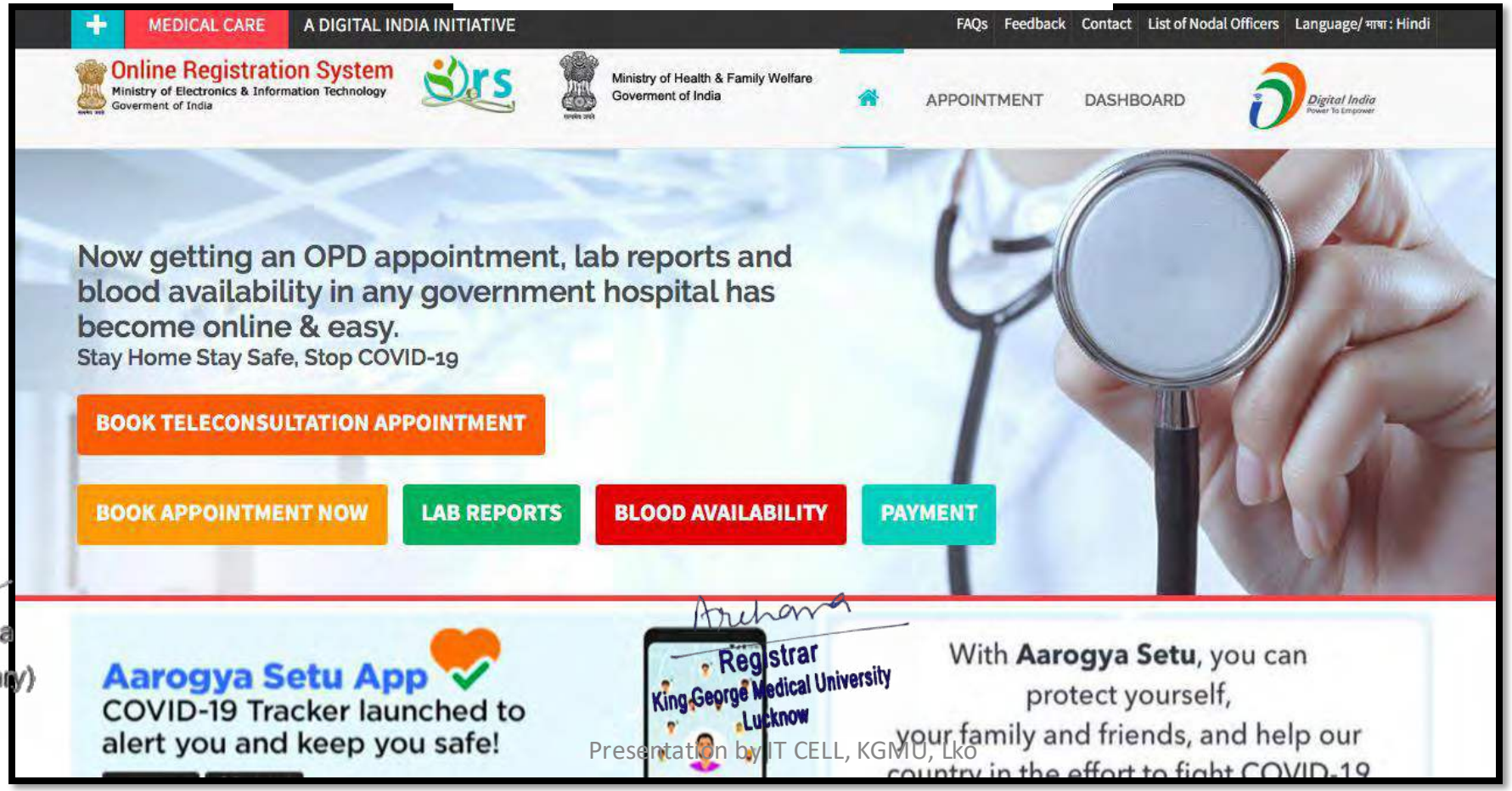
~ 65 lakhs patients benefitted

Online appointment system

Online appointments were introduced in the Year 2020 with OPDs starting after the first phase of COVID 19 pandemic. Total appointments till date: ~ 600000

https://ors.gov.in/dashboard/



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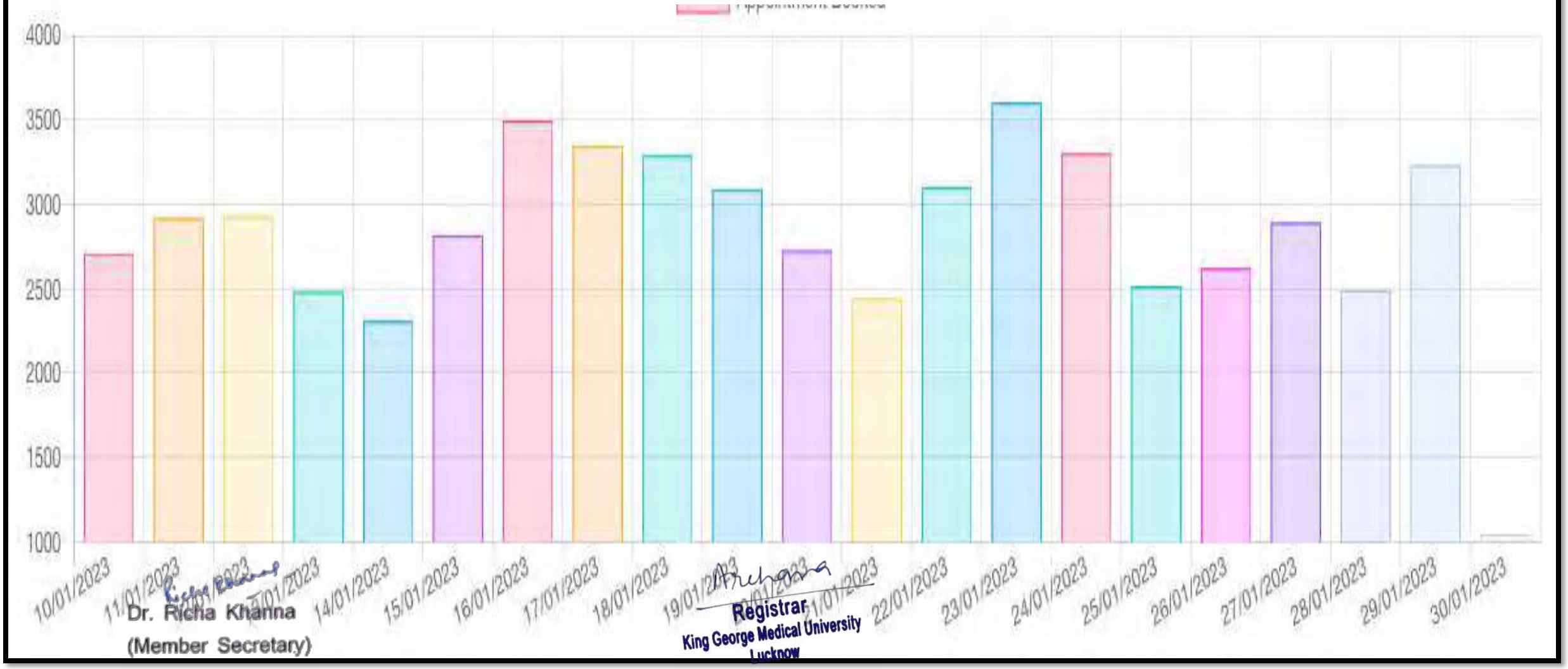
Online appointment system

https://ors.gov.in/dashboard/



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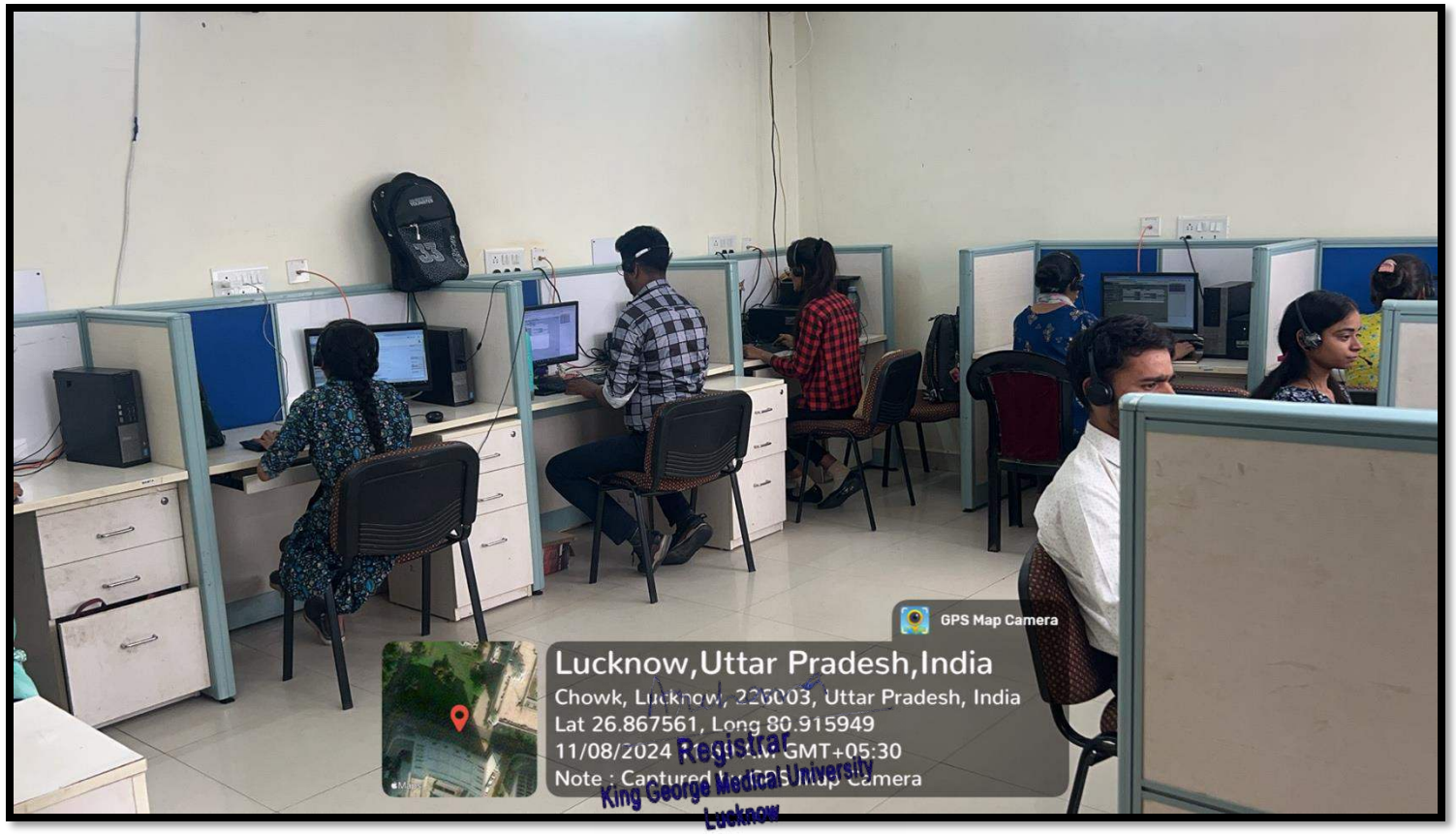
Online appointment system

Dedicated Call Centre for support : 8 AM to 8 PM
(Outsourced via bid in 2023 till August 2025 as service bid for 10 seats)



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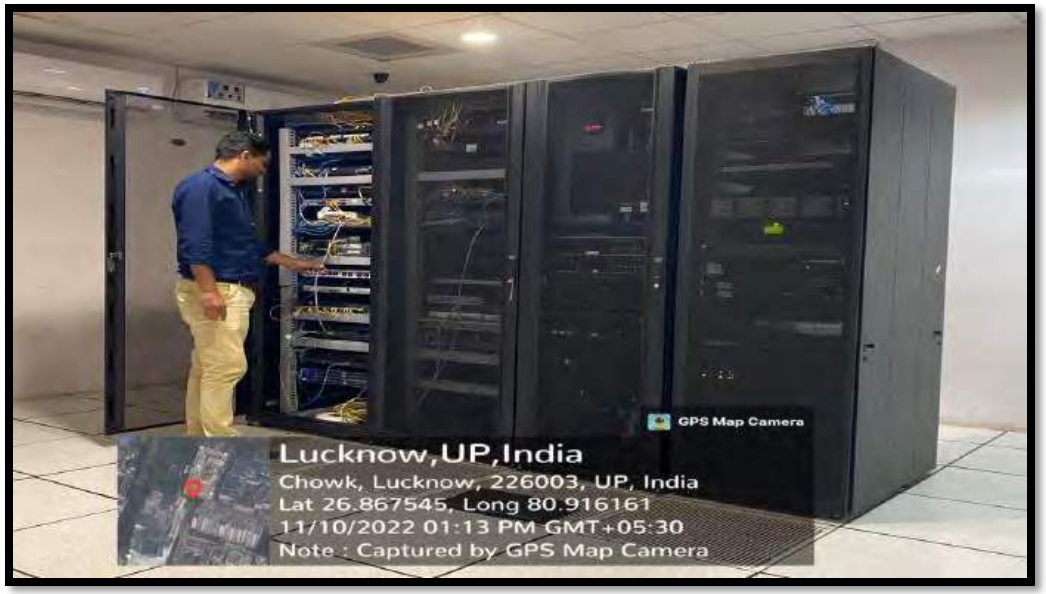
Facility Management service for dedicated Data centre



24 hours working to maintain emergency and routine hospital, administrative IT services

Total -12 servers

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Revamping of network infrastructure for smooth Network connectivity

~ 6500 ports **LAN** **WiFi** *~ 600 access points*

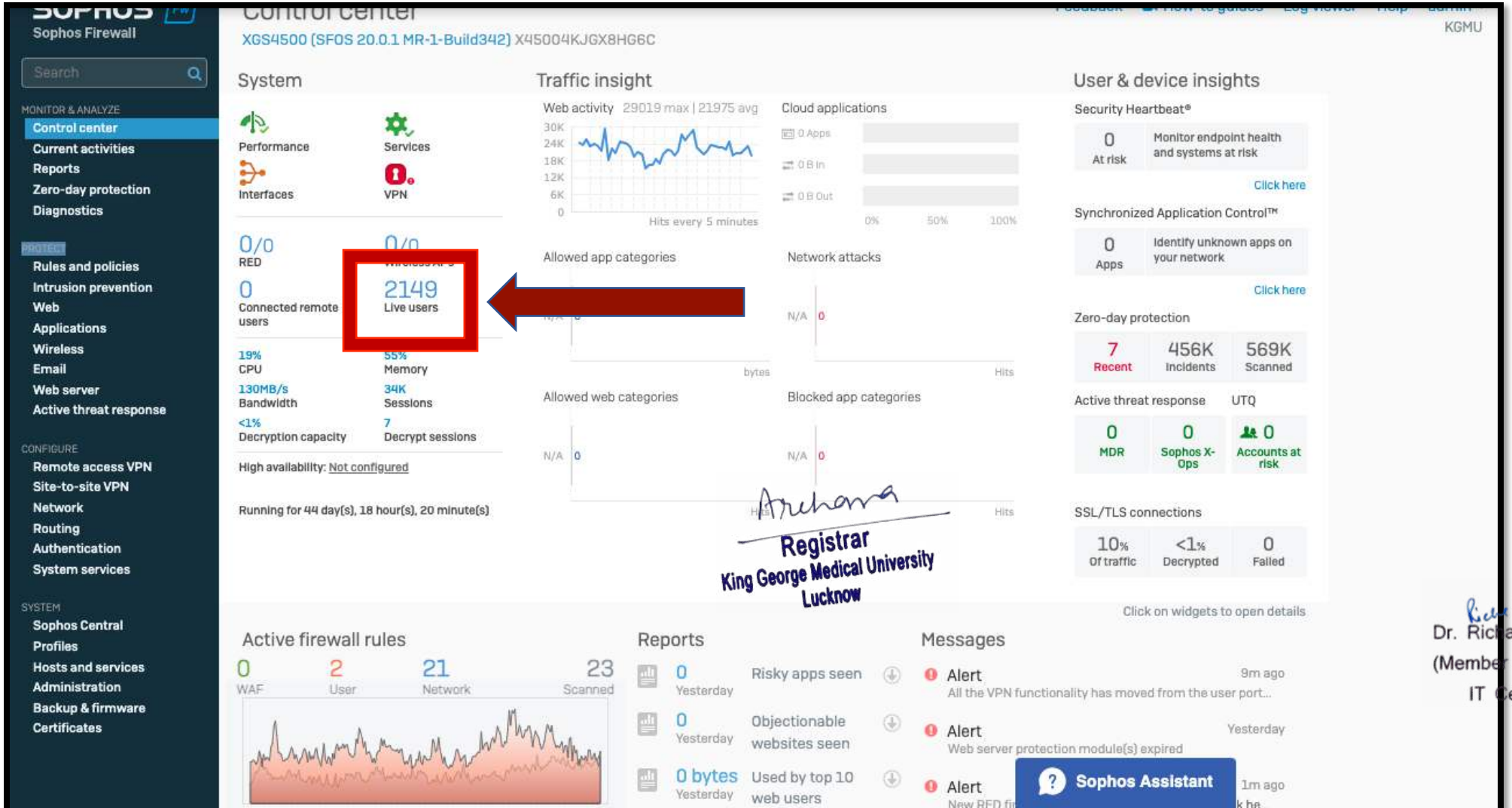
In 2023, bandwidth limit of 2 Gbps + 2Gbps

Jio lease line established in 2023

2 Core and 07 distribution switches purchase in 2023

User authentication for Internet access across campus

Internet connectivity usage is now better controlled



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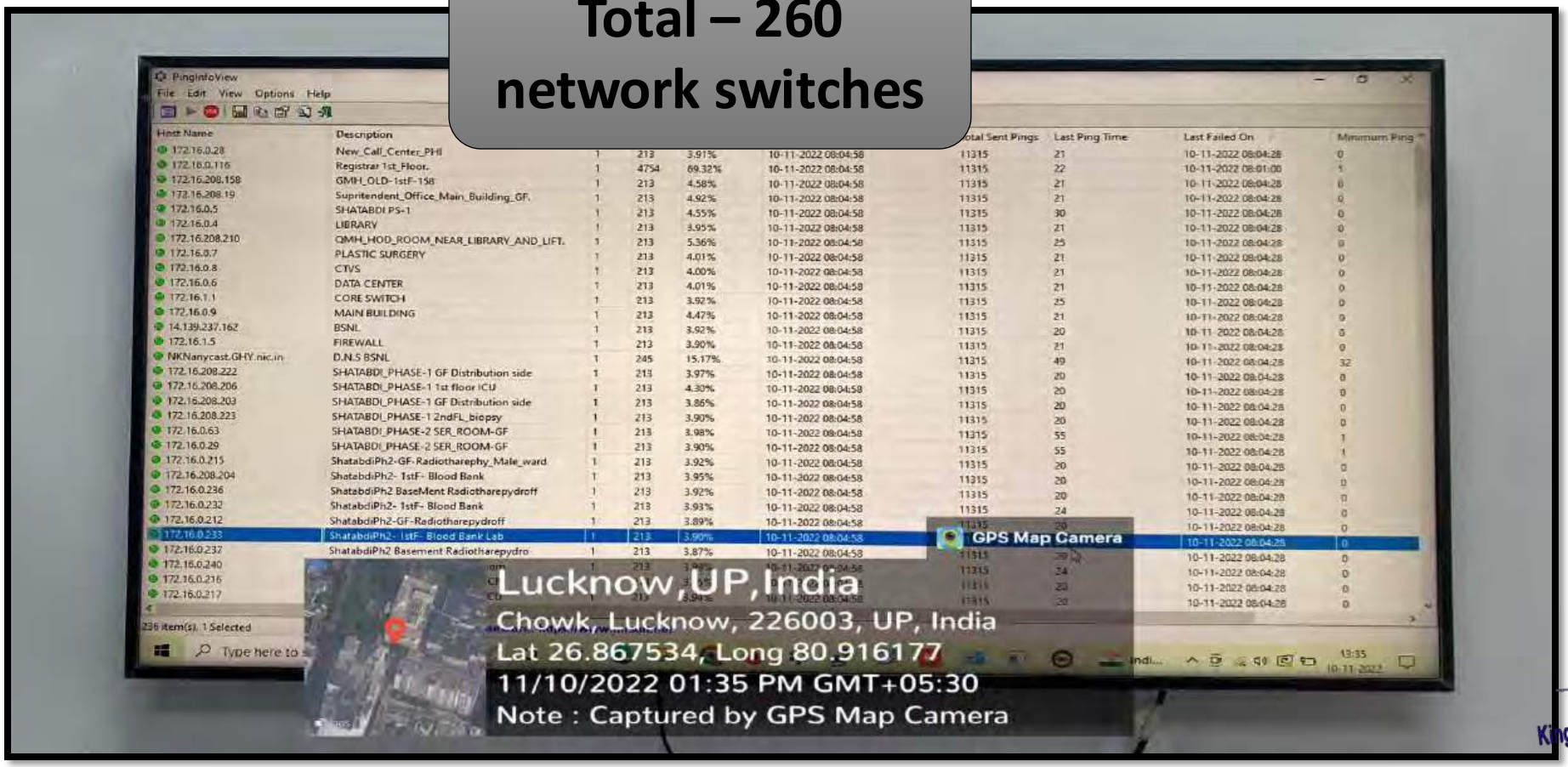
Facility Management service for dedicated Data centre

Total – 260 network switches



24 hours monitoring of network switches

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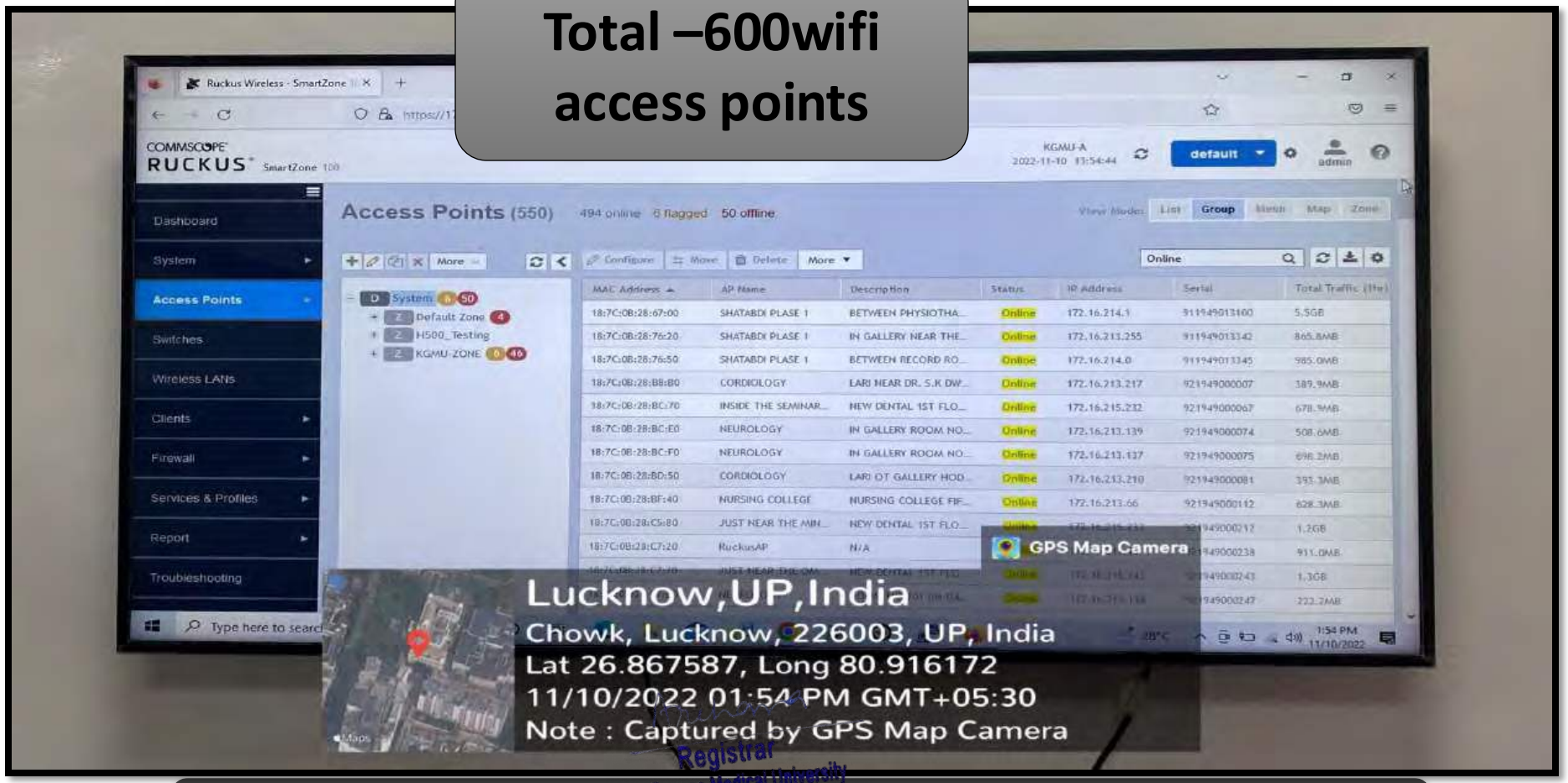
Facility Management service for dedicated Data centre

Total –600wifi access points



24 hours monitoring of Wifi access points

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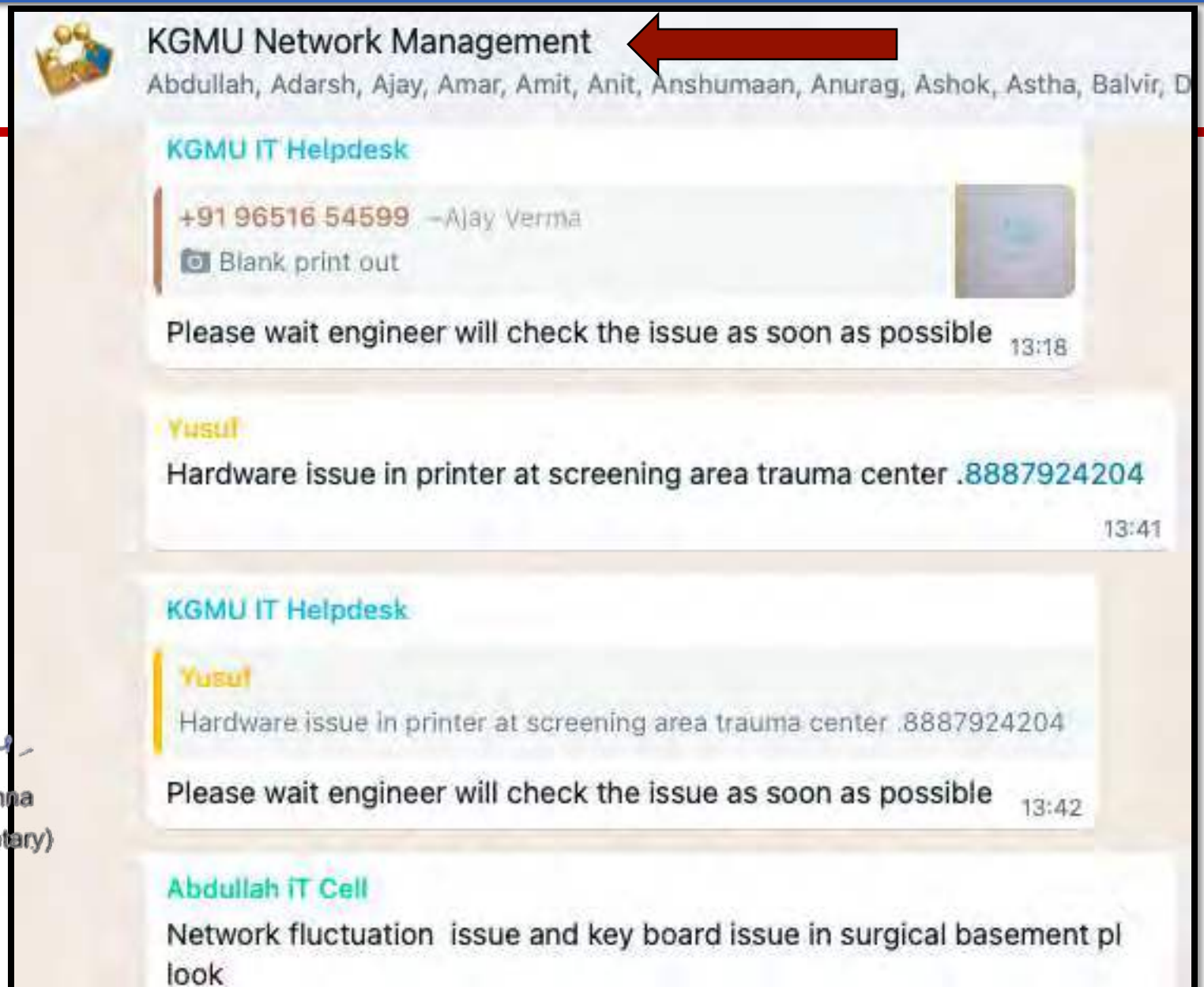
Data centre – 24 hours complaint redressal



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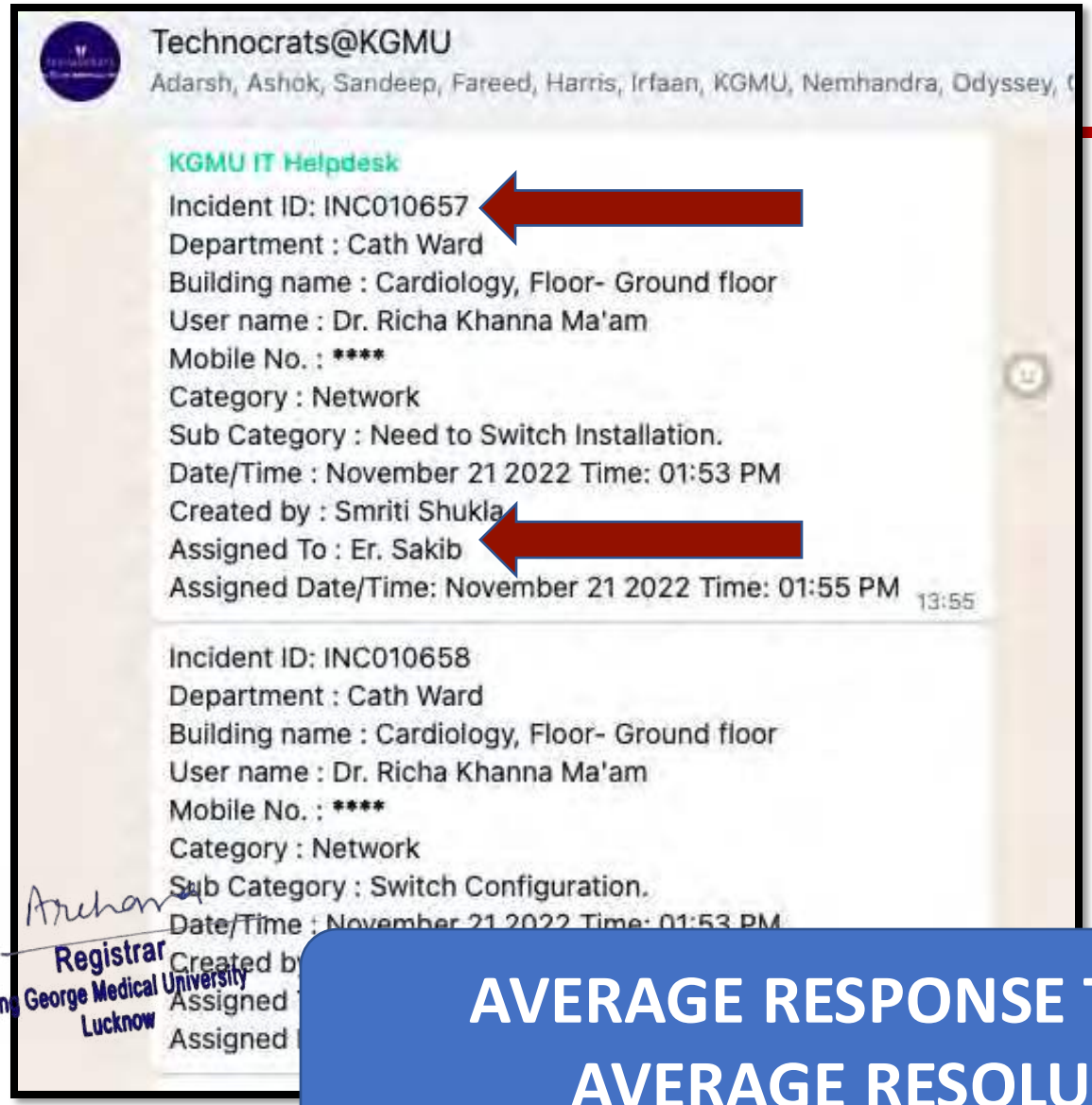
Data centre – 24 hours complaint redressal



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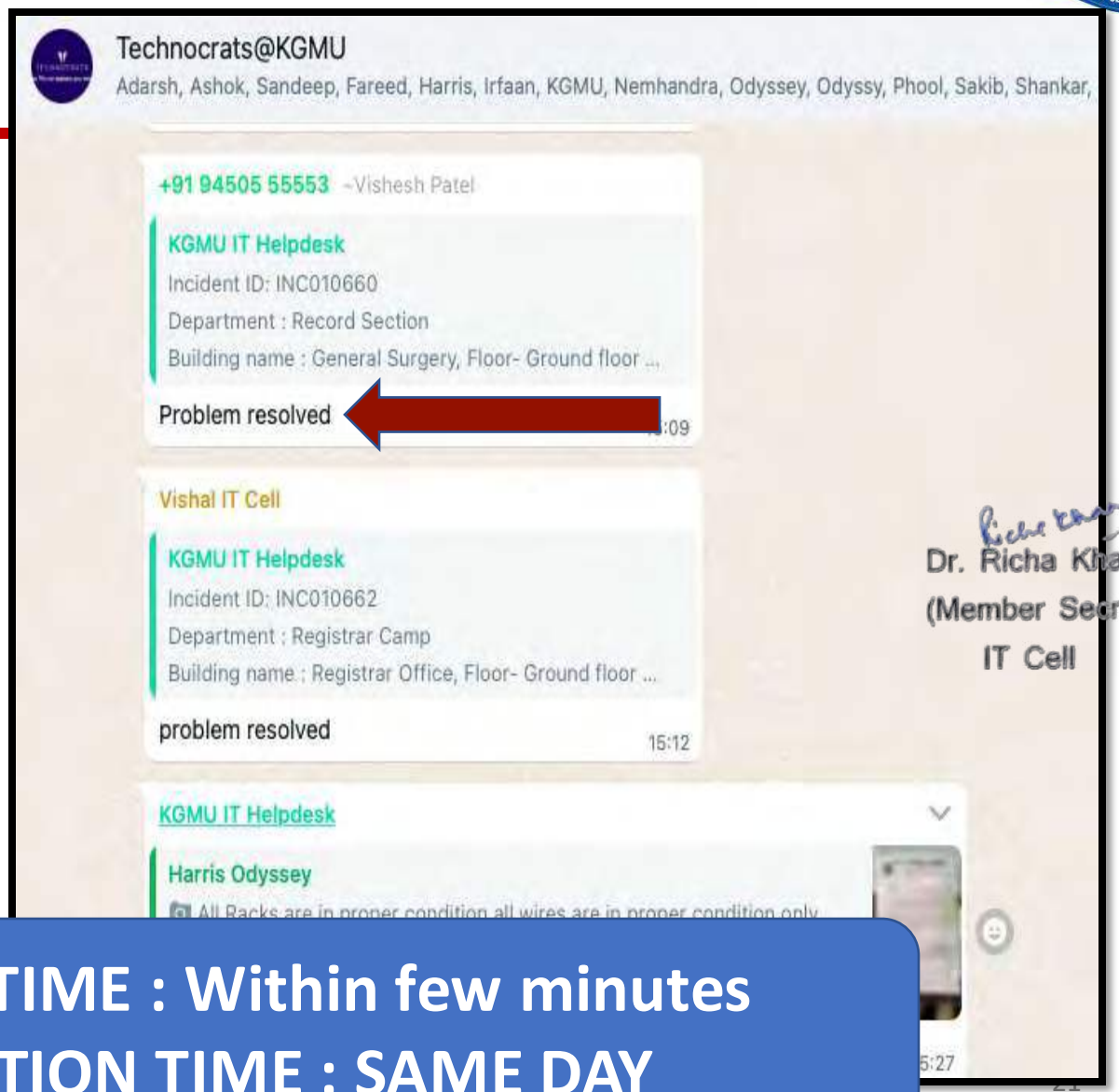

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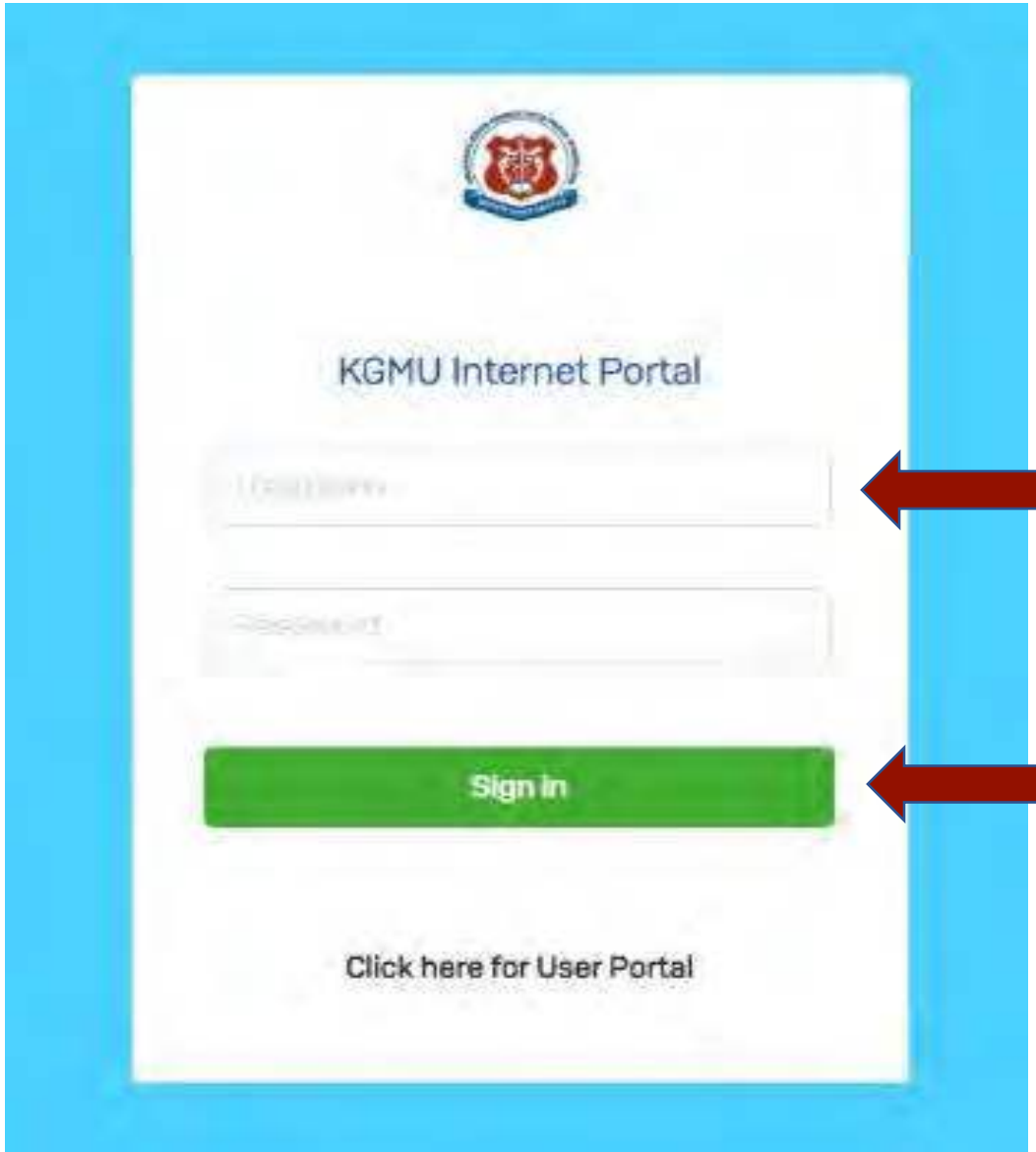
AVERAGE RESPONSE TIME : Within few minutes

AVERAGE RESOLUTION TIME : SAME DAY

User authentication for Internet access across campus



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Digital Surveillance- to enhance security across campus

We have a total of approximately 500 CCTVs across the University installed in last 5 years

DVRs/NVRs of 25 days backup

Access to concerned authorities/NMC

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Digital Surveillance – on mobile platforms

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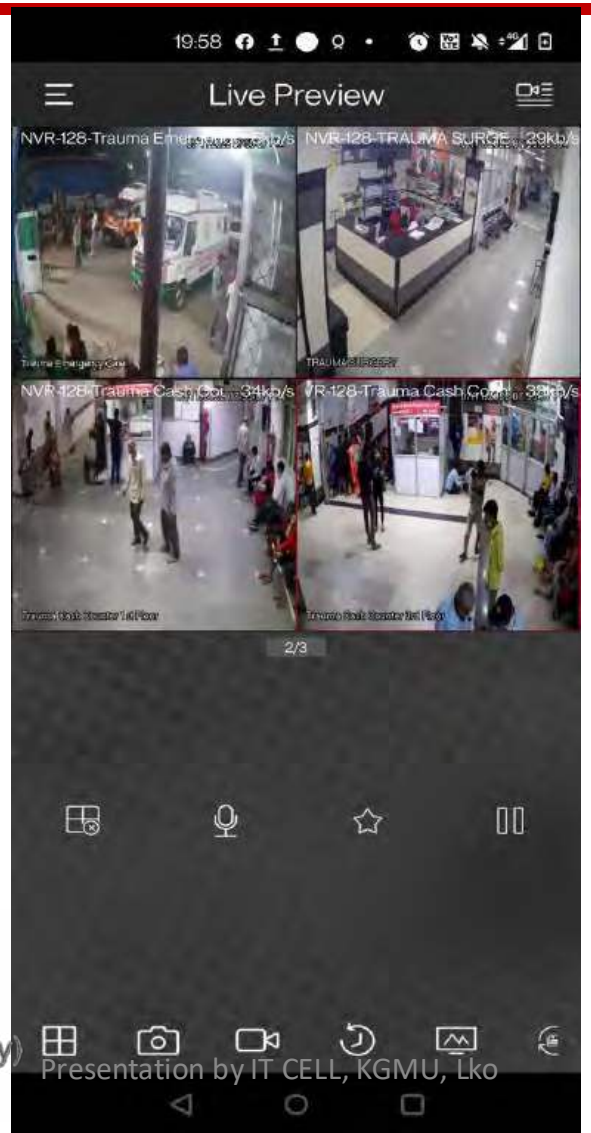
DVRs/NVRs of 25 days backup

Access to concerned authorities/NMC



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E-governance has evolved over 5 years

Manav Sampada portal for online leave management for employees and faculty

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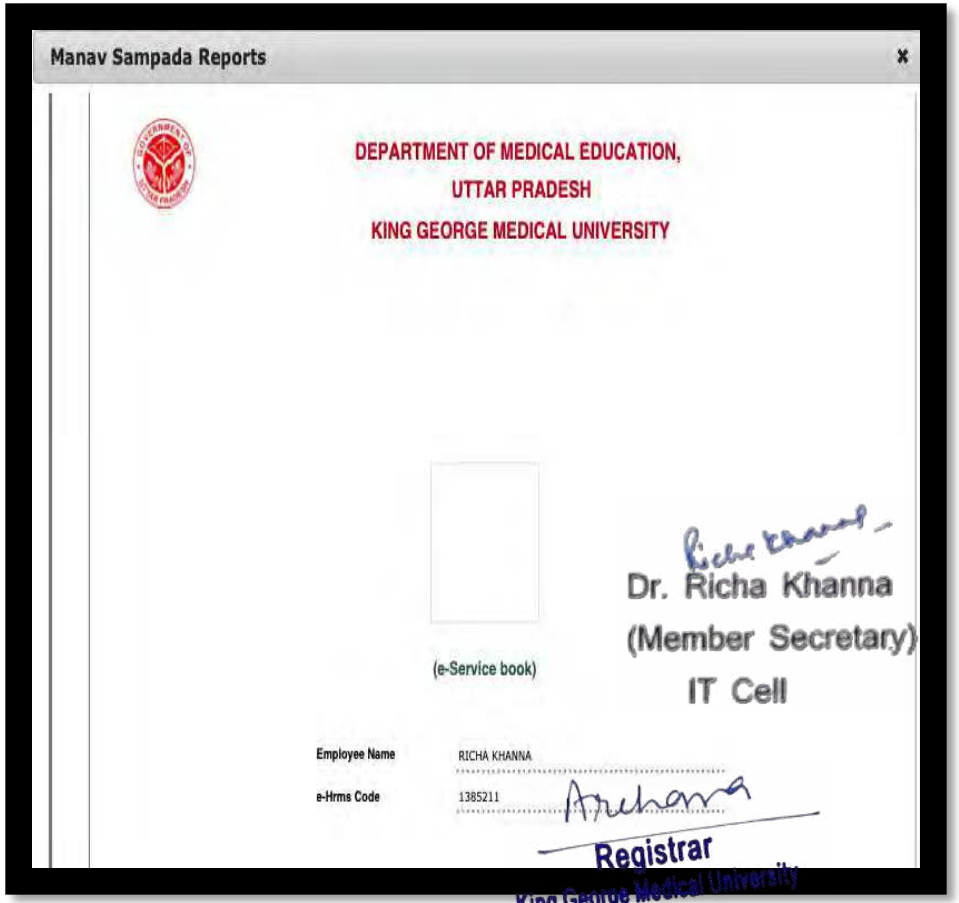
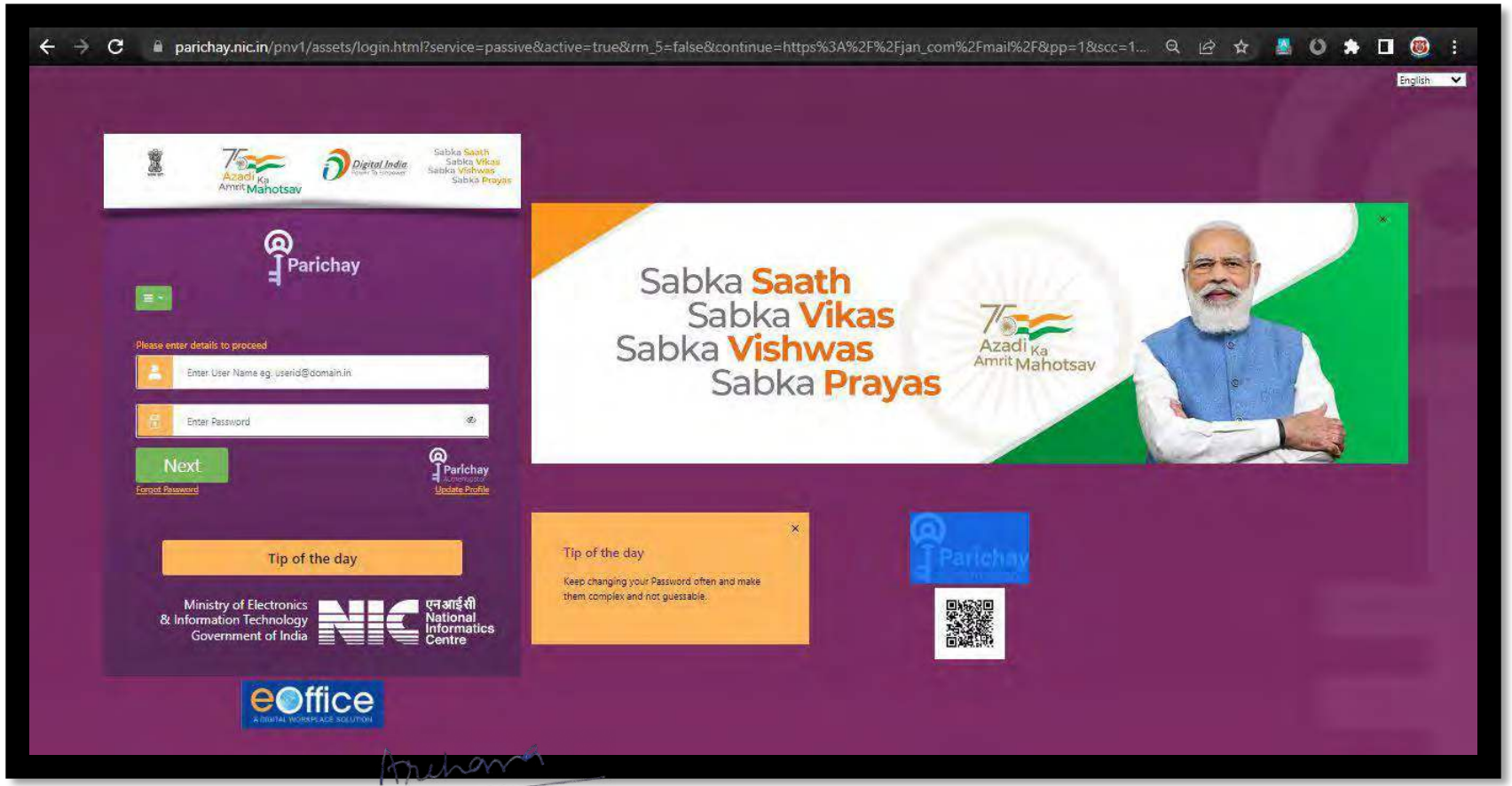
E-governance has evolved over 5 years



Manav Sampada portal for online service book

E-governance has evolved over 5 years

e-office implementation to digitize administrative services. Already in process – IGRS, RTI Files



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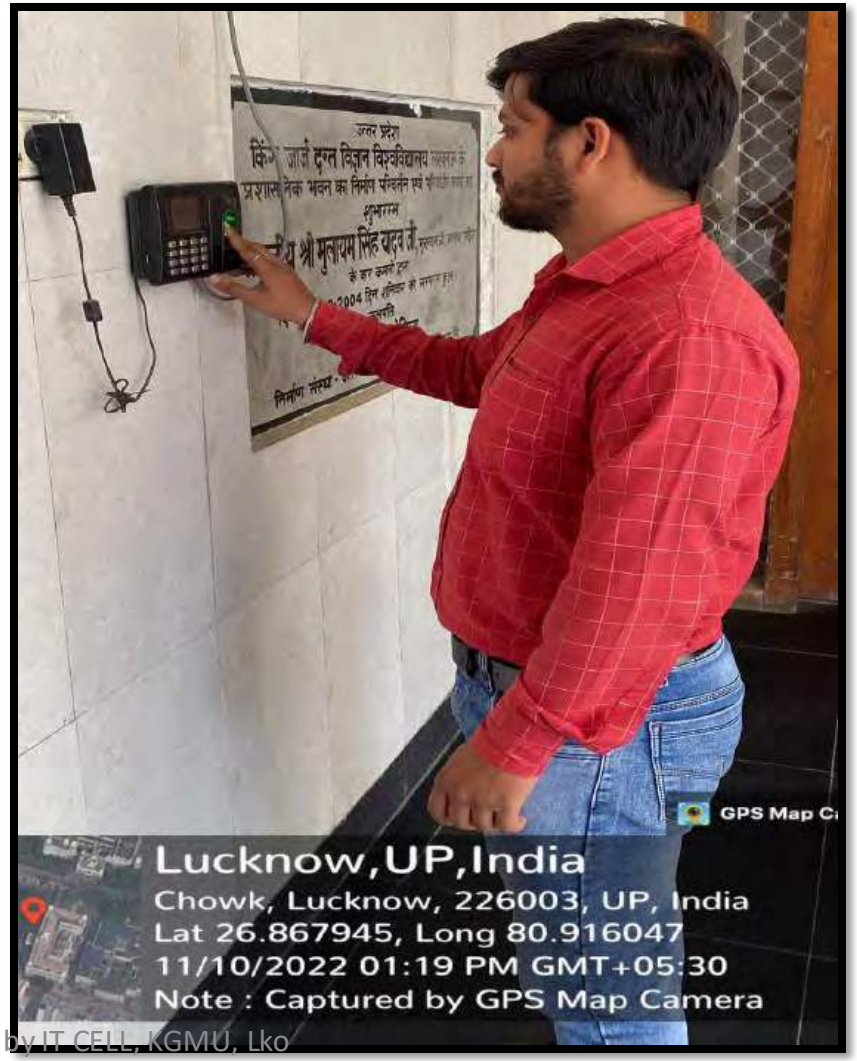
E-governance has evolved over 5 years

- *Finger and Face recognition Biometric attendance system installed ~110*



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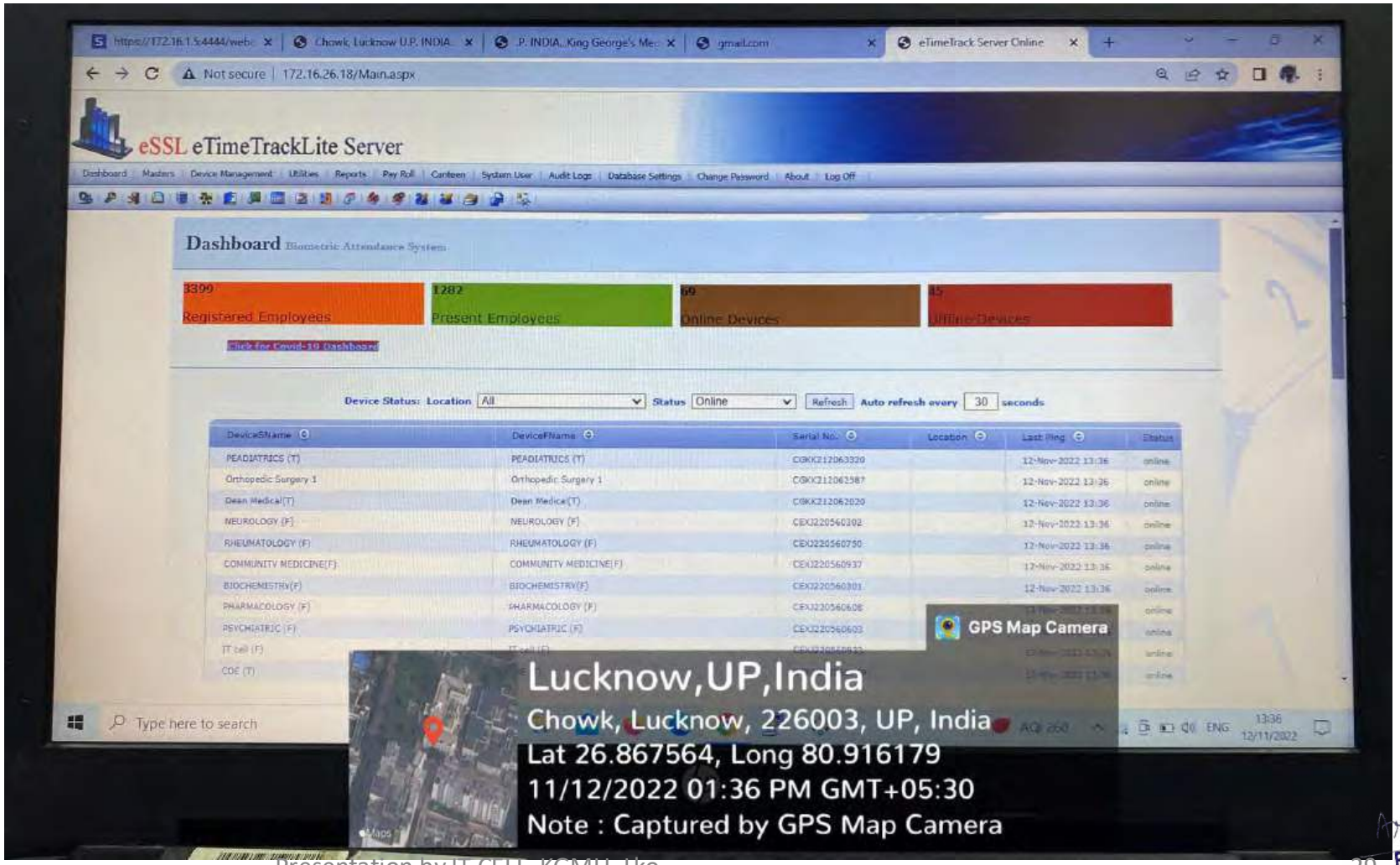
E-governance has evolved over 5 years

- *Centrally controlled server linked to salary at the level of Finance office*



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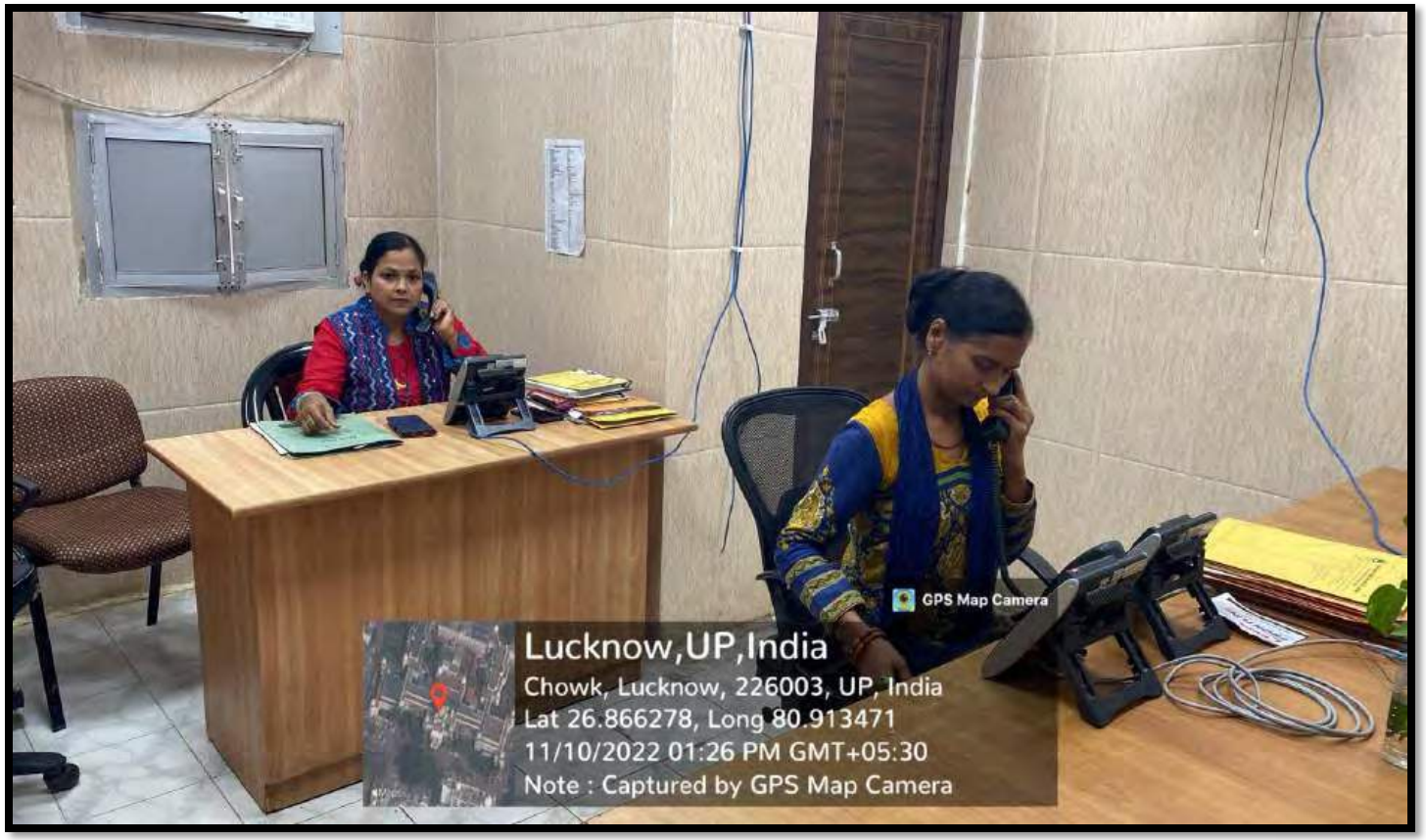
Digital OPD, Helpdesk Telephone exchange

Dedicated telephone exchange to connect to departments - mainly helpful in COVID times

Two PRI lines (BSNL – 0522 2258880; JIO – 0522 3539333) for uninterrupted services



~ 6000 consultations through telephone exchange have been done, majorly in COVID time

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KGMU website, Online fee portal

KGMU WEBSITE

KGMU website mirrors the university activities, policies and infrastructure.

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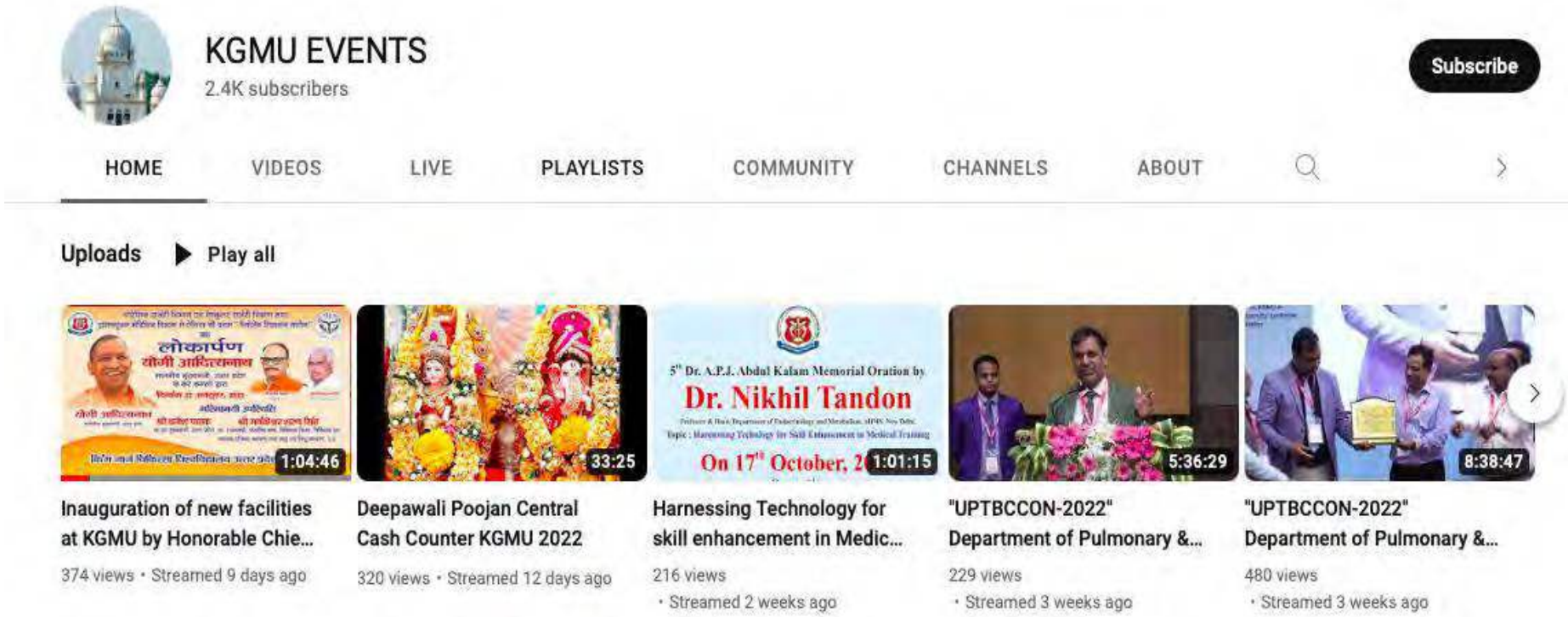
Tele-education/Tele-communication

Technical support for Online seminars/ trainings/ lectures/ clinical teachings/ discussions/ events / meetings



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Events are broadcasted on 'KGMU EVENTS' You tube channel: **Youtube**

ICT enabled Classrooms ~ 77

All Technical support provided

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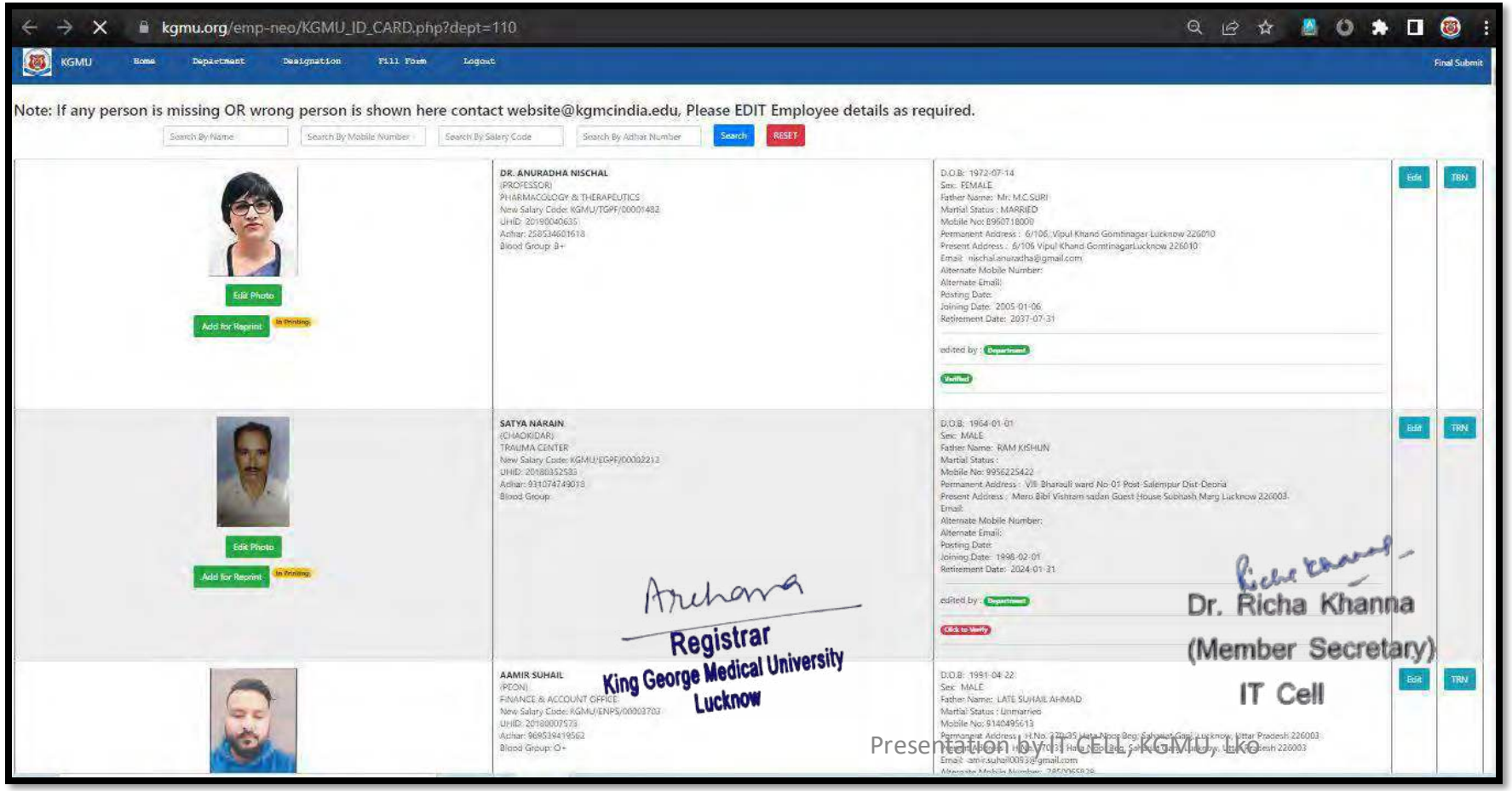
UHID linked Identity cards

All faculty, staff and students are given UHID linked Identity cards - colour coding in current year. Also for retired employees/faculty



Institutional email ids

All faculty and students have been given institutional email ids

Connectivity by IP intercom

Interconnected Campus and IVRS intercom by IP-intercom service connects hundreds of rooms across campus for administrative and patient care.

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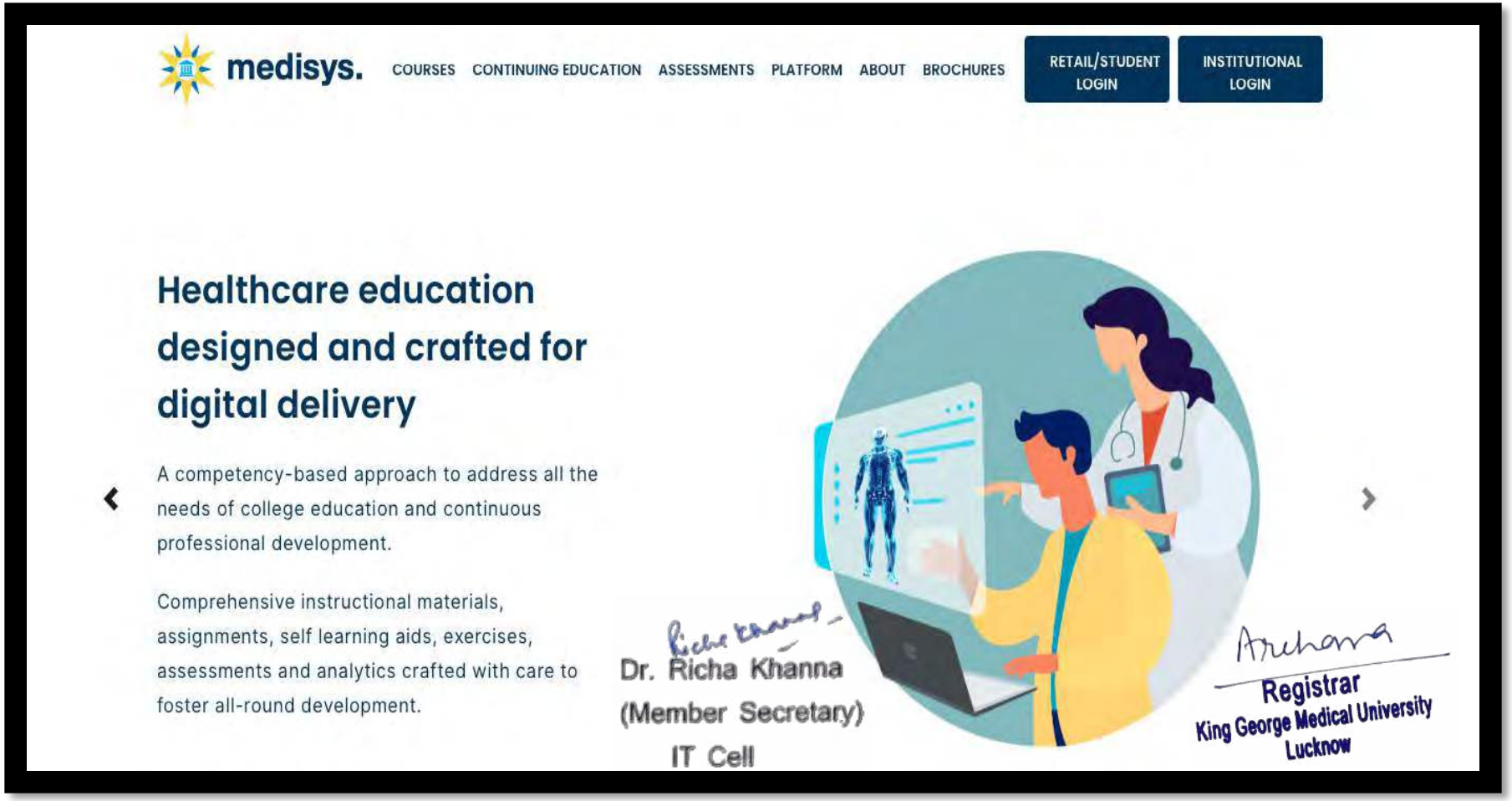
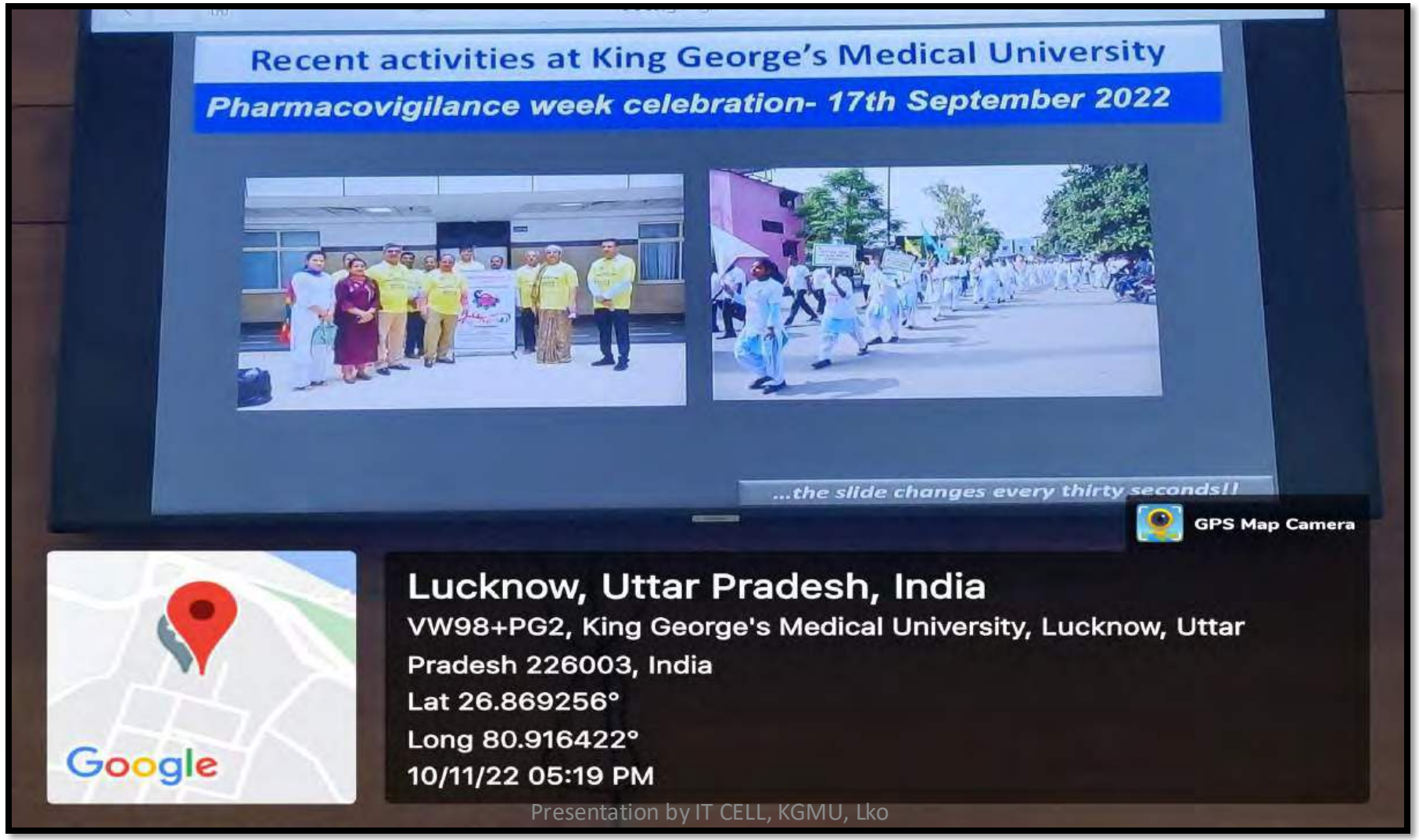
All types of Technical support

- *GeM portal*
- *Any other online portal- Online fee, online recruitment, Medisys*
- *Hardware management*



Maintain online dashboards



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Maintain online dashboards

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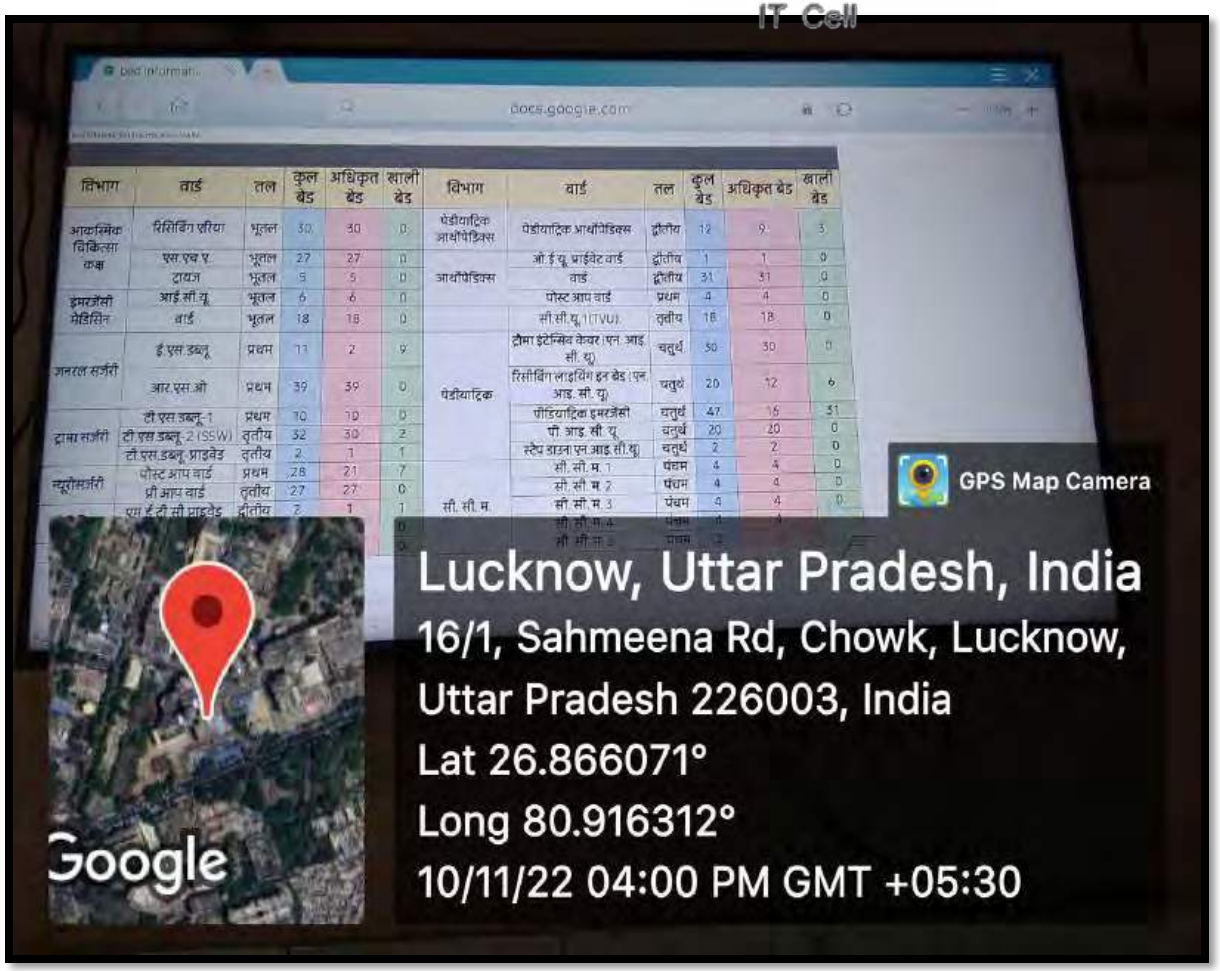

Linking of Health records to ABDM national portal

One of the top hospitals in UP to link to ABDM portal

Data presented here is for November 2024

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Linking of Health records to ABDM national portal

Received award on behalf of KGMU for LIS integration within ABDM in 2023 , By National Health Authority, India.

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Online payment system

Introduced in May 2023 (Total 35 machines)

	AMOUNT DEPOSITED VIA POS MACHINES	AVERAGE MONTHLY
2023	1,24,34,005	15 lakhs approx.
2024	3,61,79,232	36 lakhs approx.

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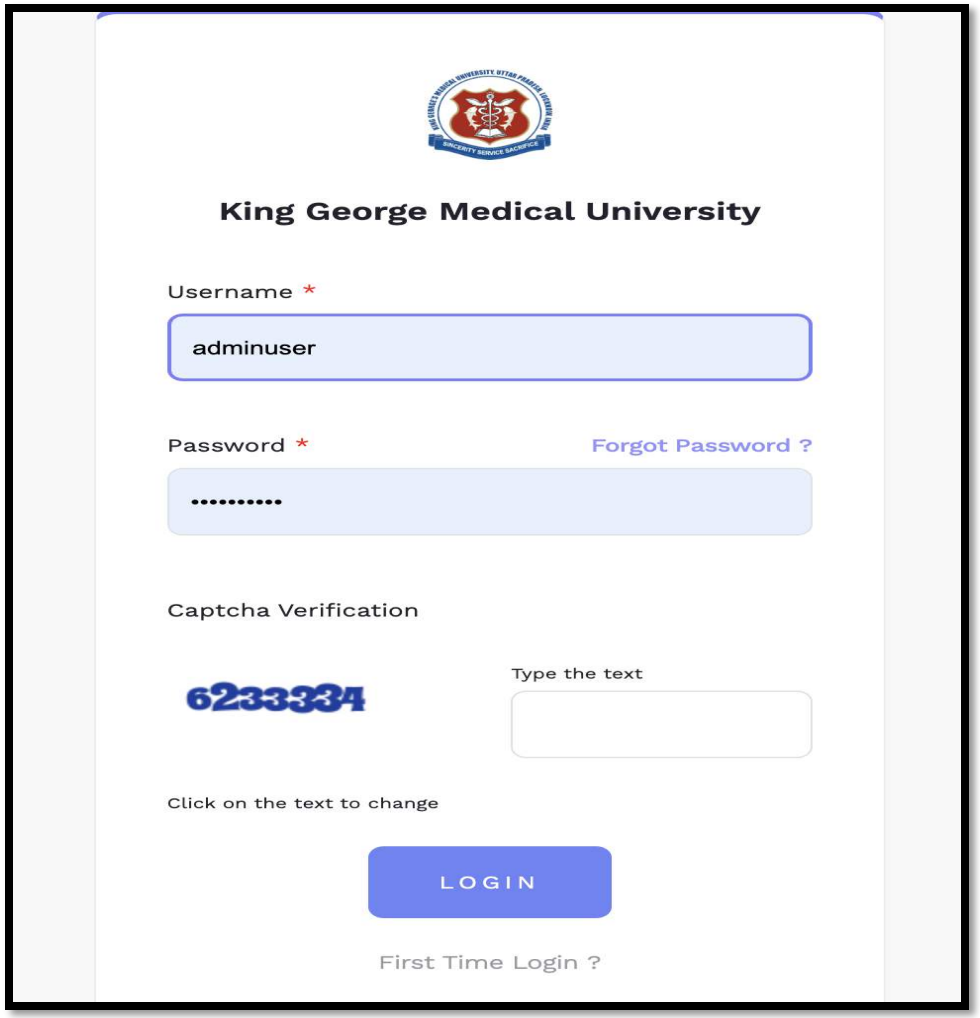
Implementation of ‘Samarth’ portal



kgmu.samarth.ac.in

Introduced in August 2023

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Implementation of ‘Samarth’ portal

Currently, executing ‘Academics’ module.

All data entered for smooth admissions in 2024

SWOC analysis

STRENGTHS

- Ability to manage within limited resources
- Total number of employees to execute IT operations
- Multi-tasker employees
- Horizontal/vertically integrated in all processes of the University

WEAKNESSES

- Lack of technical leads/administrators
- Lack of high order skilled technical staff on permanent posts
- Lack of annual budget allocation for IT assets
- Lack of IT workshop with skilled personnel

OPPORTUNITIES

- Collaboration with more technical institutes/universities
- Training perspectives
- Developing self sustaining applications for automation at KGMU
- Embracing advanced technologies especially AI

CHALLENGES

- HR management
- Large enterprise level network
- Large user base at KGMU
- Creating self-sustaining processes
- Small office space
- Financial processes management

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Collaborations of IT Cell

APJ Kalam technical University, Lucknow

Collaboration approved by Executive Council, KGMU- 2021

Mahatma Gandhi Institute of Health informatics, Jaipur

MOU signed in 2022

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Outcomes of Collaborations of IT Cell

Network Behaviour assessment by AKTU - Report received

Technical advice from AKTU regarding IT equipment purchase, external expert in Technical committees

Student exchange under MOU with MGIHI, Jaipur – 02 students

Elective of Health Informatics introduced for MBBS curriculum

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Outcomes of Collaborations of IT Cell

IT cell also extend helping hands to other medical colleges in implementation of HMIS

Also extending helping hand in creating ABHA ids in Balrampur hospital and Civil hospital of Lucknow.

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IT Cell-Future...

To further comply to the
"Sustainable Development Goals"
as aligned with the Vision, Mission and Goals of KGMU,
by developing a dedicated
"Department of Information Technology"
Equipped with technical and technological competence.

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