ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS), New Delhi

Invitation for **INDUSTRY CONSULTATION**

FOR

"Design, development, implementation, roll-out and maintenance of Integrated Medical University Information System (IMUIS)"

NOTE: RESTRICTED CIRCULATION ONLY. USE OF ANY INFORMATION CONTAINED IN THIS DOCUMENT OTHER THAN FOR THE PURPOSE OF RESPONDING TO THE INDUSTRY CONSULTATION CALL IS STRICTLY PROHIBITED

1st June 2022

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Letter of Invitation

Dear Sir/Madam,

All India Institute of Medical Sciences (AIIMS), New Delhi, invites submissions from appropriate firms for Industry Consultation for Designing, development, implementation, roll-out and maintenance of Integrated Medical University Information System (IMUIS) for its 60+ departments including specialties and super specialties along with more than 8 specialty Centres and 22 central facilities. In undertaking this project AIIMS, New Delhi is looking to leverage the best in digital technology and Solution to deliver seamless experience to its stakeholders. AIIMS, New Delhi has initiated work on its redevelopment plan to emerge as a world class medical university and state-of-the-art healthcare facility. It has laid down a comprehensive plan with an aim to increase the bed capacity of the hospital from the existing 3,194 beds (inclusive of all the Centres) to about 6,000 beds. The integrated 'one-campuses will focus on all the investigative, therapeutic, operative, rehabilitative, and vocational needs of the patients and academic and research needs of scholars and students.

Currently, AIIMS, New Delhi, has multiple disparate IT Systems ranging from patient engagement to support systems. AIIMS is supported by two HIMS systems that are partially integrated to each other. Both HIMS solutions comprise different maturity levels in terms of automation and adoption at end users. In order to have a complete suite of IT integrated systems, AIIMS, New Delhi, has taken a strategic decision to implement a comprehensive fully Integrated Medical University Information System (IMUIS) which will technologically empower the operation processes, allow future expansion, productivity, scalability, and operational growth & efficiency. The overall strategic objective of this large Digital Transformation project is to achieve the following:

ABDM Integrated Electronic Health Record (EHR) across all AIIMS New Delhi campuses	Integrated learning framework to support disparate and evolving learning delivery needs	Seamless Integration of all centres and facilities of AIIMS, New Delhi	Seamless secure data access & integration between academics, research & patient services
Revamp of old and legacy IT infrastructure to Highly secured, futuristic and scalable technology	Improve overall population and public health with advance and predictive analytics system	Achieve operational efficiency through cost optimization and reduce wastage	Institutionalizing use of emerging technologies and innovations in process and functions
Integration with RIS / PACS and LIS across different locations of AIIMS, New Delhi	Enhanced patient experience with reduced patient journey time	Digitalize the entire support system with ERP and Integrate the same with Core application	Ensure staff satisfaction and reduce workload through the digitalization of manual processes

Integrated Medical University Information System (IMUIS) encompasses hospital information management system (HIMS), Academic Management System, Research Information Management System, RIS, PACS LIMS, EMR, EHR, Telemedicine, ERP (including but not limited to Finance, Stores, Human Resources, etc.), Analytics, IoT, Administrative Dashboards and other such digital solutions.

To execute the same and with an endeavour to follow a consultative approach, AIIMS - New Delhi has decided to engage with the global industry participants by inviting written submissions to enable us develop an informed RFP for implementation of IMUIS. This Industry Consultation is being organized to consult with organizations that have prior experience in providing similar services and their solutions for the given scope**.** Please note that this consultation shall be non-competitive. Responses related to this Industry Consultation will not advantage or disadvantage for prospective bidders in any future stages. AIIMS, New Delhi reserves the right to further invite firms participating in this industry consultation for any presentations or discussions, if required.

Thanking you.

Yours Sincerely

Dr. Angel Rajan Singh
Addl. Prof. of Hospital Administration
& Convener, Project Management Unit
AIIMS, New Delhi - INDIA
+91-11-26593399, pmu@aiims.edu

Guidelines for Industry Consultation

Following guidelines are suggested for the participants for the Industry consultation program at AIIMS, New Delhi.

1. This consultation program is being organized to have a viewpoint from stakeholders on the proposed IMUIS and to understand their suggestions and concerns, if any. Firms from outside India may also participate in industry consultations.
2. AIIMS, New Delhi would examine the information received from the firms meeting the criteria mentioned in PART III under heading "Target Firms for attending Industry Consultation"
3. This is an Invitation for Industry consultation and no way binding on any firm for responding to RFP at a later stage. The RFP will be shared with the entire industry and not only with the participants of this industry consultation.
4. The response to Industry Consultation must specify the content as detailed in the PART IV.
5. AIIMS, New Delhi reserves the right to further invite firms participating in this industry consultation for any presentations or discussions if required.

PART I: GENERAL TERMS

1. Objective of this Invitation for Industry Consultation

AIIMS seeks a consultation with Industry leaders to exchange information, knowledge and experience for providing innovative and advanced solutions for Design, Development and Implementation, Roll Out, and Maintenance of IMUIS.

IMUIS encompasses (but not limited to)

1. Hospital information management system (HIMS)
2. Learning/Academic Management System/ Student Management System
3. Research Information Management System
4. Radiology Information System (RIS) & Picture Archiving and Communication System (PACS)
5. EMR (Electronic Medical Record), DMS (Document Management System)
6. Web Portal for Patient and Employees
7. Mobile App- for Patient, Doctor, Students and Top Management etc..
8. Tele-medicine & Tele Consultation
9. Enterprise Resource Planning (ERP) for Finance, Store/Procurement, Establishment & Recruitment, Asset Management, Project & Workflow management, Contract Management
10. Big data and Advance Analytics
11. Other such Innovative and Emerging digital health solutions and Technology

2. Issuing Authority

This Invitation for Industry Consultation is issued by the All-India Institute of Medical Sciences, New Delhi. Responses related to this Industry Consultation will not advantage or disadvantage prospective bidders in any future stages.

S. No.	Item	Description
1	**Project Title**	**Industry Consultation for Design, Development, and Implementation of IMUIS for AIIMS, New Delhi**
2	**Project Initiator Details**	
	Department	**Project Management Unit, AIIMS, New Delhi**
	Contact Person	Convener, Project Management Unit 011-26593399, pmu@aiims.edu (No individual meeting requests for any kind of sales pitch will be entertained. All interested firms are requested to submit a formal response to this industry consultation via email as detailed herein)
	Website	http://www.aiims.edu

3. Documents to be submitted in response to Industry Consultation

#	Particulars	Description
1	Details of the Organization	• This part must include a general background of the respondent organization (limited to 400 words)
2	Relevant Experience	• Relevant experience related to similar type of previous assignments covering the different relevant aspects (HIMS and integration of HIMS with ERP Modules, Academy/Learning/University Management System, Research Information Management System, Health Analytics (BI and Big data), RIS-PACS, EMR/EHR, Telemedicine, Mobility, Portal and covering the aspects related to IT-Infrastructure including setting up and maintenance of Data Centre and Disaster Recovery Site or Hybrid model (Inhouse DC and DR on Cloud)with security provisioning for large Hospital/Group of Hospitals, Campus LAN/WAN. Any other adopted/implemented innovative or emerging technology solution for Healthcare provider/Medical University/Research, etc)
3	Number of Manpower	• Number of manpower in Technology who have been on the payroll of the company for more than a year
4	Turnover of the last 3 FY	• The interested firm must also provide the financial details – Turnover of the last 3 financial years viz 2020-21, 2019-20, 2018-19 of the organization as per format provided at Annexure – Form IV. Enclose the mandatory supporting documents listed in format.

PART II: SCOPE OF SERVICES

1. Background

AIIMS was established as an Autonomous Institute with the power to grant its own medical degrees & diplomas (University) through the AIIMS Act, 1956.

AIIMS, New Delhi has a total of 60+ departments including specialties and super specialties along with more than 8 specialty Centres, More than 10 Campuses, and 22 central facilities. In undertaking this project AIIMS, Delhi is looking to leverage the best in digital technology to deliver seamless experience to its stakeholders. AIIMS, New Delhi has initiated work on its redevelopment plan to emerge as a world class medical university and state-of-the-art healthcare facility. It has laid down a comprehensive plan with an aim to increase the bed capacity of the hospital by more than 50 percent, from the existing 3,194 beds (inclusive of all the Centres) to about 6,000 beds. The integrated 'one campus' will focus on all the investigative, therapeutic, operative, rehabilitative, and vocational needs of the patients and academic and research needs of scholars and students.

Existing Facilities

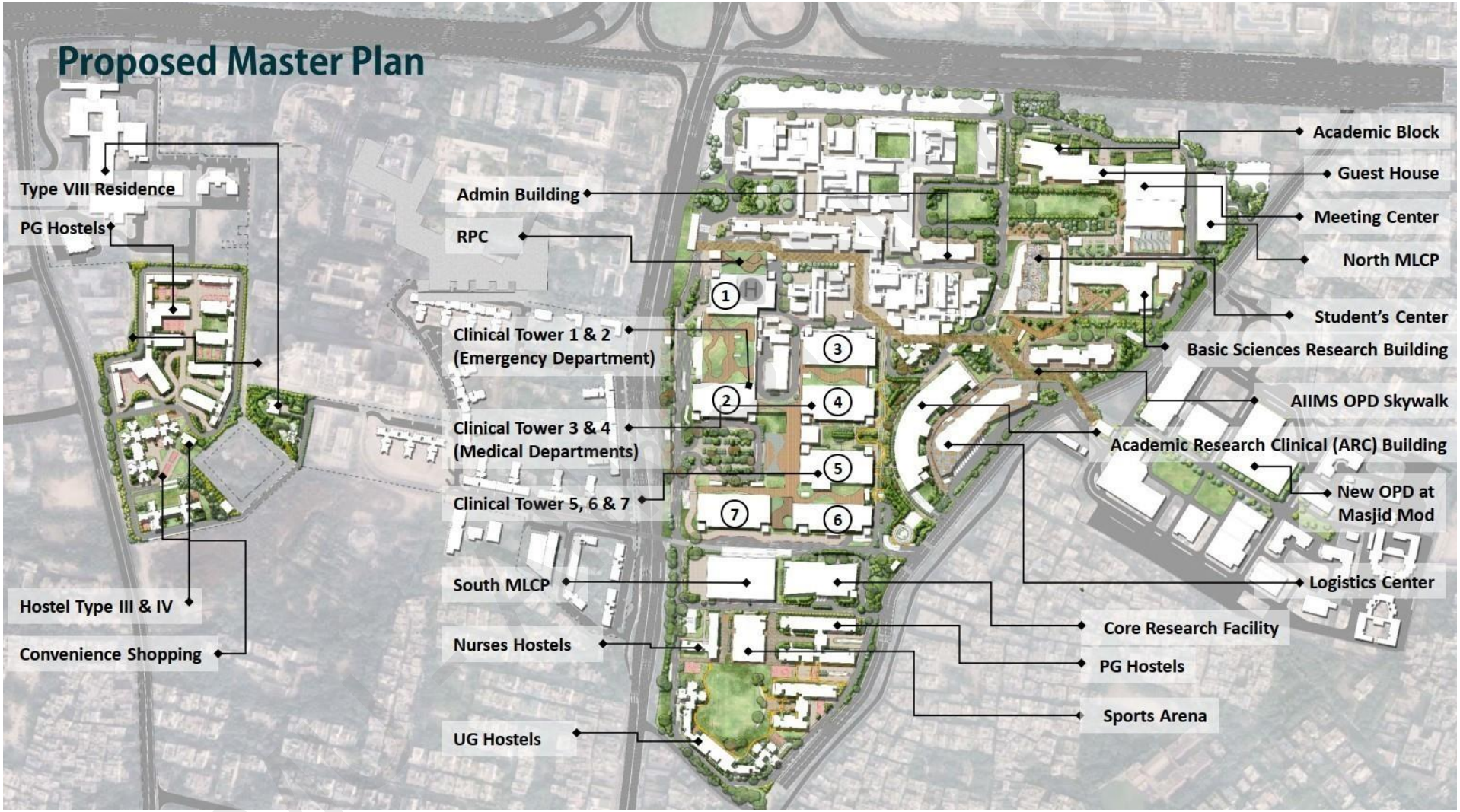
Treated 3.5 Million Patients in OPD
Over 2.4 Lakh IPD Patients
Over 1.9 Lakh Surgeries

Projected Growth

125% | Increase of In-patient capacity in 7 Years
50% | Increase in number of students in 10 years

AIIMS Master Plan and upcoming Infrastructural Changes

The redevelopment of the 66-year-old institution will see AIIMS upgrade into a state of art medical university with its bed strength going up from around 3200 to over 6000.



2. Current Landscape of Clinical areas and IT applications

AIIMS, New Delhi is inviting global healthcare solution providers for Industry consultation who have implemented state of art healthcare solutions with a proven track record in enabling digital health, leveraging digital technologies to transform Patient care delivery, using data analytics and Artificial Intelligence (AI) algorithms to provide insights into operational efficiency, connecting disparate systems to provide seamless access to data, delivering patient-centric mobile applications, and delivering enhanced learning and research workflow solutions.

Currently, AIIMS, New Delhi, has multiple disparate IT applications ranging from patient engagement services to support systems. Hospital Information System at AIIMS, New Delhi are eHospital from NIC (National Informatics Centre) and VistA (Veterans Health Information System and Technology Architecture). These applications have different maturity levels in terms of data capture, automation, integration with 3rd party systems.

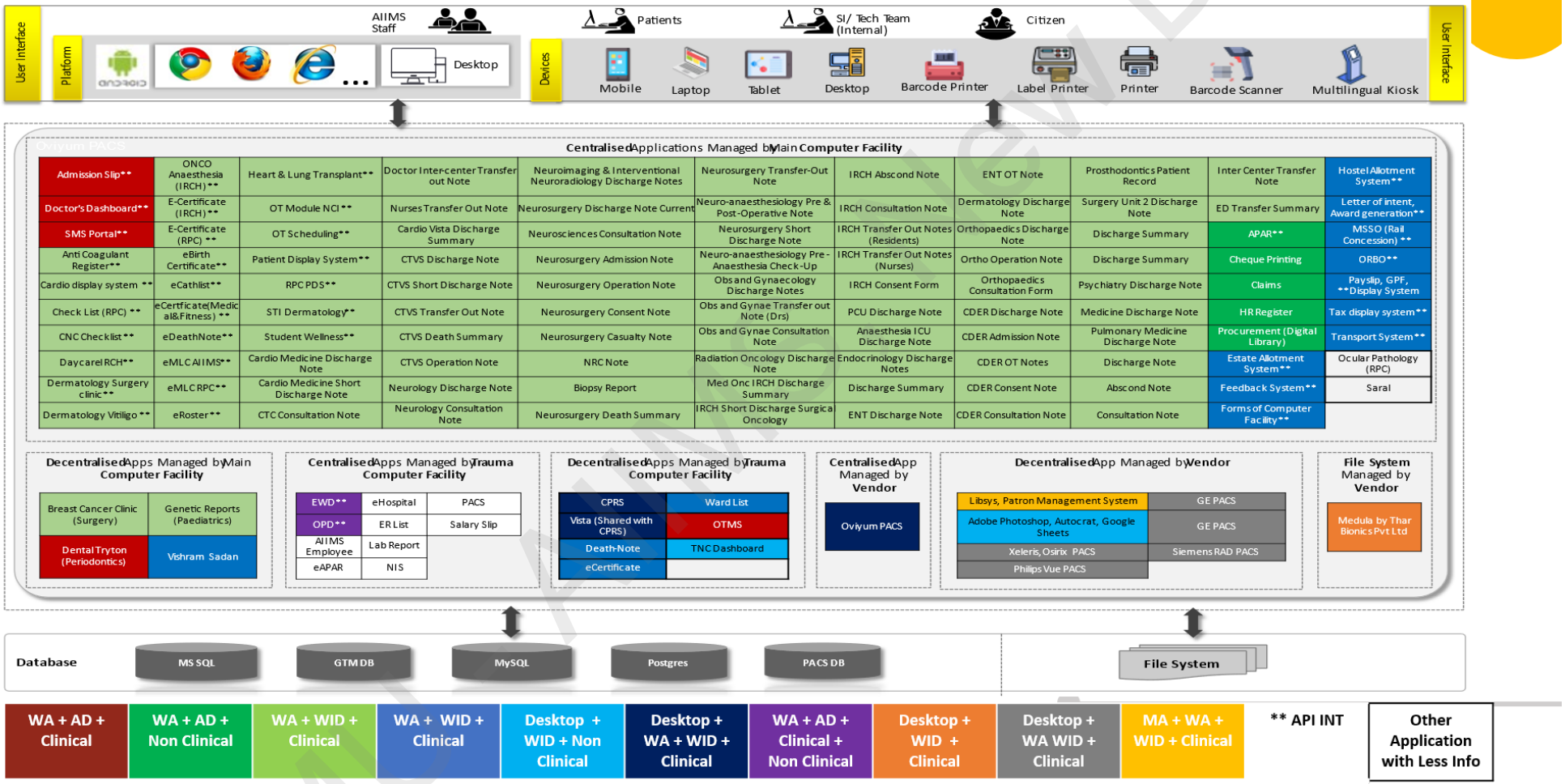
Therefore, AIIMS, New Delhi, has taken a strategic decision to implement a comprehensive Integrated Medical University Information System (IMUIS) that will serve the trinity mission of AIIMS – academics, research, and patient care. In addition, it should also satisfy the guidelines and protocols established by the Ministry of Health and Family Welfare, Government of India with respect to universal healthcare delivery goals. The proposed IMUIS solution should allow for future functionality expansion, adoption of latest health technologies, integration with various medical devices, integration with various governmental agencies, increase employee productivity, scalable to ever-increasing workloads, and to support operational growth & efficiency.

Following is the High-Level existing business Application block Diagram for reference:

Current Application Ecosystem

Web Application – WA
Across Department – AD
Mobile Application - MA

API Integrable – API-INT
Within Department - WID



e-Hospital (Hospital Information System)

e-Hospital@NIC, developed by NIC, is built using Open-Source software and technologies. It is built on a Linux platform with Tomcat as application server, JBoss as Business Logic Layer and uses PostgreSQL as database in a J2EE framework.

e-Hospital@NIC offers business functionality through the following mostly used modules:

Module	Purpose
Patient Registration (OPD, Casualty, Appointment & ORS)	The patient registration module of the e-Hospital application is used for patient registration in the OPD and Casualty departments as well as to book, confirm and cancel appointments.
Billing	The Billing module handles all types of billing workflows. This module facilitates cashier and billing operators for managing billing functions related to billing receipts and refunds.
Lab Information System (LIS)	The Lab module automates the manual procedures used in the following laboratory areas: ordering of tests and procedures on patient specimens, collection and accessioning of specimens into the laboratory database, processing and analysis in appropriate department or work areas, review, and verification of results, reporting of results and/or diagnoses for clinical treatment.
Admission, Discharge & Transfer (ADT)	The IPD module commences when the patient is being registered and allotted bed in the ward. It deals with the complete treatment and services provided to the patient during his stay in the hospital.
Clinic (OPD & IPD)	The Clinic module allows the clinicians and doctors to record the clinical data of the patients like visits, examination, diagnosis, history, treatment, prescriptions etc., and to order investigations, procedures, and medicines, to keep track of the treatment and other services provided to the patients.
Radiology Information System (RIS)	The Radiology module automates the manual procedures used in the radiology services: ordering and scheduling of tests and procedures, review, and verification of results, reporting of results and/or diagnoses for clinical treatment.
Store & Pharmacy	The Store & Pharmacy module is used for managing the stores and pharmacies along with generating indents and procuring/providing store items and medicines.
OT Management	The OT Management module automates the functions and workflows of operation theatres in the hospitals.

Dietary	The dietary module automates the functions of dietary services provided to the patients in the hospitals.
Laundry	The laundry module automates the functions and workflows of laundry services in the hospitals.

VistA (Hospital Information System)

VistA, a Healthcare Information System, developed by U.S. Department of Veteran Affairs, is built using Standard M programming system. The business functionality of VistA is provided through the following modules:

- Consultation
- Progress Notes
- Dietetics
- Allergy Tracking
- Radiology
- Lab Orders
- Problem List
- Scheduling
- Admission, Discharges and Transfer
- Vitals
- CPRS (Computerized Patient Record System)

To overcome the shortcomings of e-Hospital and VistA, the Computer Facility provides support to end-users by developing custom applications to meet the business needs of the departments / centres.

Other Clinical and non-core Applications used

Technology Stack: ASP .NET framework, IIS web Server and MS-SQL as the database	
Application	**Purpose**
Admission Slip	This application has been developed to generate the admission slip.
Anti-Coagulant Register	This application is used to record the anti-coagulant parameters of a cardiac patient.
Cardio Display System	This application is used to get the bed status for patient in ward and CCU
Day-care IRCH	This application provides functionality to schedule appointment for administration of drug for day-care patients. It is also used for maintaining medical records, taking print of discharge summary
Dermatology Surgery clinic	This application stores the medical records of patients arriving at the Dermatology Surgery Clinic
Dermatology Vitiligo	This application captures patient history details, photo of patient.
E-Certificate (IRCH)	This application is used to generate Medical Fitness Certificate for a patient
E-Certificate (RPC)	This application is used to generate Medical Fitness Certificate for a patient
eBirth Certificate	This application records the clinical and demographic details of new-born babies
eCathlist	This application records the clinical details of patients (adults and paediatrics) who have Cath lab procedures scheduled
eCertficate (Medical & Fitness)	This application is used to generate Medical Fitness Certificate for a patient
eDeathNote	This application is used to generate the death summary for a patient who is pronounced dead.

eMLC AIIMS	This application provides for creation of MLC record in Emergency Department
eMLC RPC	This application provides for creation of MLC record in Emergency Department
eRoster	This application is used to create duty roster for AIIMS staff
Heart & Lung Transplant	This application provides for maintaining the waiting list of heart and lung transplant patients
OT Module NCI	This application provides functionality to schedule surgeries for Operation Theatre.
OT Scheduling	This application provides functionality to schedule surgeries for Operation Theatre.
Patient Display System	This application provides functionality for emergency department to post registration details entry
RPC Patient Display System	This application provides functionality for emergency department to post registration details entry
STI Dermatology	This application is used to maintain the patient demographic information and clinical information
Technology Stack	Tryton Platform (Python) with PostgreSQL
Breast Cancer Clinic (Surgery)	This application is used to maintain the records of breast cancer clinic
Dental Application (Prosthodontist)	This application maintains the clinical details of patients consulting for Prosthodontist
Doctor's Dashboard (Telemedicine)	This application allows a doctor to view teleconsultation appointment, conduct teleconsultation and generate an e-prescription
Genetic Reports (Pediatrics)	This is an application providing creation of reports of genetic testing

Technology Stack: Tryton framework (Python) with PostgreSQL as the database	
Application	**Purpose**
Breast Cancer Clinic (Surgery)	This application is used to maintain the records of breast cancer clinic
Dental Application (Prosthodontist)	This application maintains the clinical details of patients consulting for Prosthodontist
Doctor's Dashboard (Telemedicine)	This application allows a doctor to view teleconsultation appointment, conduct teleconsultation and generate an e-prescription

Non-Clinical Applications developed by Inhouse IT Team

Technology Stack: ASP .NET framework, IIS web Server and MS-SQL as the database	
Application	**Purpose**
Estate Allotment System	This application provides for the allotment of residences for faculty. Also allows for user to raise applications.
Feedback System	Touchscreen kiosk system for patient staying at ward. Feedback system for behavior of doctors, nurses, general cleanliness and linen.
Forms of Computer Facility	This provides for new joiners (faculty and students) to apply for various IT services like email, library access, etc.
Hostel Allotment System	This application is used for maintaining the requests received from students (UG / Paramedical / SR / JR) for hostel accommodation
Letter of intent, Award generation	This application is used for generating Letter of Intent and Awarding of Tenders
MSSO (Rail Concession)	This application is used to generate rail travel fare concession letters for deserving patient
ORBO	This web application collects information about intent to donate from a potential donor.
Payslip	This application provides functionality to print the payslip signed digitally
GPF	This application provides functionality to print the GPF statement signed digitally
TAX display system	This application provides functionality to print the Form-16 document statement signed digitally
GUEST HOUSE	This application is used for making booking reservations for the guest house in Delhi, Shimla, Conference Hall, JLN Auditorium, Community Centre
SMS Portal	This application is used to send bulk SMS messages to patients to announce any cancellation of services
Student Wellness	This application is used to maintain mental health information of patients

Transport System	This application provides functionality for booking of transport vehicles for faculty, Group A officers and others

Technology Stack: Tryton framework (Python) with PostgreSQL as the database	
Application	**Purpose**
Annual Performance Appraisal Report (APAR)	This application is used to record the inputs for performance appraisal of employees
Cheque Printing	This application is used to print filled bank cheques and generate a report containing bank account information, money transfer instructions. The report is then emailed to the bank officer's email account
Claims	This application allows a user to record all non-taxable allowances and reimbursement claims.
Procurement (Digital Library)	This application is used to store records of items purchased
Vishram Sadan	This application is used to provide room allotment for bystanders of patients admitted in AIIMS

Integration with 3rd Party Systems

- **Integration with Mirth (Lab Equipment Interfacing Engine)**

  Mirth is the leading open-source healthcare integration engine designed to handle HL7 message integration. Mirth acts as a bridge between LIS server of eHospital and the Lab equipment. The lab equipment have been connected either using direct HL7 integration or ASTM integration. Clinical labs have been established as standalone facilities or as a support facility within a centre.

- **Integration with RIS (Radiology Information System)**

  AIIMS New Delhi has multiple radio-diagnosis facilities operating as a standalone facility or as a support facility within a centre. As a result, multiple RIS and PACS systems have been implemented at different facilities. These have been provided by Siemens, GE, Philips, Fuji, and Raster.

  There are approximately 2,40,000 Studies have been stored/archived in Open PACS during 2021-2022

  The services offered by radio-diagnosis facilities include but not limited to:

  - Routine X-Rays (Fixed and Portable)
  - Mammography
  - Dexa Scan
  - Ultrasound
  - CT
  - MRI
  - Dental X-Rays
  - SPECT / PET scans
  - Ophthalmic Imaging Studies
  - Interventional Procedures
  - Interventional Non-Vascular Studies
  - Special Investigations (Barium Studies, etc.)

Digitization of Medical Records

The main objective of Medical Records Department (MRD) is for digitization of Inpatient medical records of Main Hospital for easy retrieval of records. Over 1.31 crore images of case records of patients have been scanned for future reference. The Medical Records of in-patients are systematically classified and categorized for easy retrievals for the purposes of Education, Research/Thesis, Presentation, Insurance, Court Cases etc. These records are stored in Compactors according to C.R. Numbers.

Statistical Information

Online Appointment Status Year Wise

	OPD	Admissions
2017-18	43,55,338	2,45,565
2018-19	38,14,726	2,54,605
2019-20	44,14,490	2,68,144

OPD REGISTRATIONS (NEW AND FOLLOW UP Patients) STATISTICS

Centre Name	New Registrations (Physical)	Follow up Registrations (Physical)	New Registrations (Tele consultation)	Follow up Registrations (Tele consultation)
Main Hospital	1,04,891	1,77,240	224	36,906
CN Centre	13,224	36,494	1,261	23,428
Dr RP Centre	36,616	67,020	14	1,236
CDER	21,236	26,749	892	612
IRCH	21,185	14,548	0	0

Academics

The Academic Section is responsible for managing the core academic activities of the AIIMS. Academic section is also responsible for short term, long term, and elective training programs for students and employees of various organizations in India and abroad. Current significant workflows and their IT systems used are:

Learning Management System

Technology Stack: Moodle Clone with MySQL as the database	
Application	**Purpose**
SARAL	This application is used as a learning management system for students. It provides functionality for course management, teaching content management, student, and faculty management

S.No.	Key Processes /Workflows	Manual and or IT systems
1.	MBBS Student Lifecyle Process	Significant number of manual files and letters
2.	BSc Nursing student Lifecycle process	Significant number of manual files and letters
3.	BSc (Paramedical) student lifecycle process	Significant number of manual files and letters
4.	Junior Resident – Academic Lifecycle process	Manual Files
5.	Senior Resident – Lifecycle process	Manual Files
6.	Ph.D student lifecycle process	e-Office, Exam section portal, AIIMS website
7.	MSc student lifecycle process	Manual Files
8.	Junior Resident – Non-Academic lifecycle process	Manual Files
9.	Senior Resident – Non-Academic lifecycle process	e-Office, Exam section portal, AIIMS website
10.	Hostel UG allotment process	Manual and IT applications
11.	Hostel PG allotment process	Manual and IT Applications

S.No.	Key Processes /Workflows	Manual and or IT systems
12	Library Management System	Libsys – used by all students and Faculty
13	Learning Management System with Student Management	Saral – used by all students and faculty

Research

The Research Section is the nodal point for facilitating and supporting research at AIIMS. Key Processes and their IT applications are:

S.No.	Key Processes /Workflows	Manual and / or IT systems
1.	Proposal management for extramural funded research projects including the onboarding of the staff)	A lot of dependency on manual process, Dak (Postal system) and physical documents. Use of locally developed basic IT application build on .Net and using MS SQL data base. This application is primarily used for recording key information about the project, generating letters and MIS.
2.	Proposal management for intramural funded research projects (including onboarding of the staff)	Apart from the manual and IT system mentioned above for the extramural funded projects, there is one additional IT application developed by Way2World. This has functionality for Principal Investigator (PI) to initiate and researchers to monitor the projects and share it with reviewers.
3.	Leave Management by project staff	Manual process except system generated of various types of letters
4.	Resignation / Termination by PI	Manual process except system generated of various types of letters
5.	Issuance of NOC and experience certificate	Manual process except system generated of various types of letters
6.	Grant Management System	• Grant Management Systems has limited features, and it is largely accessible only to the extramural projects. • Significant challenges in tracking the funds to the appropriate account and it involves huge manual intervention.

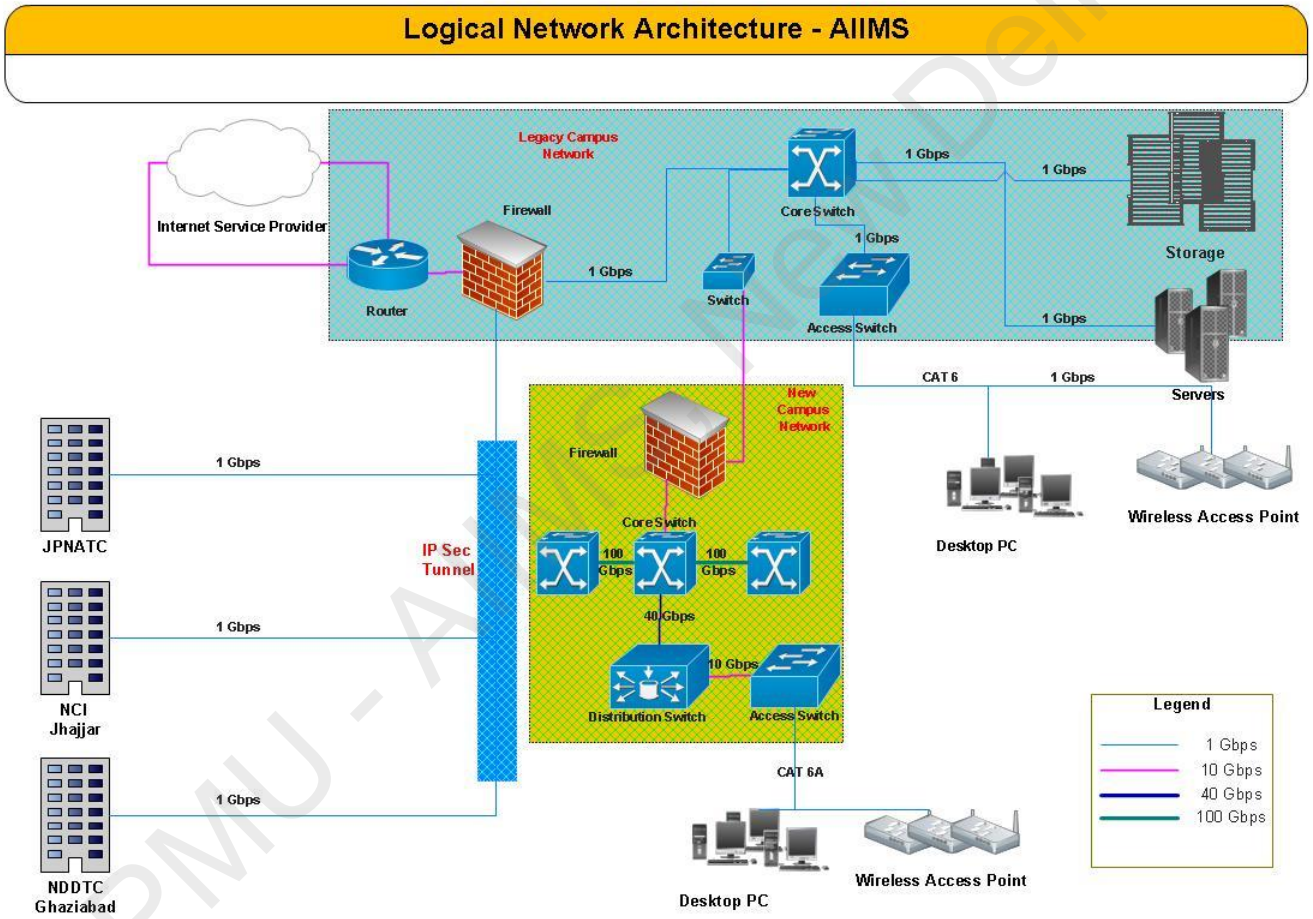
S.No.	Key Processes /Workflows	Manual and / or IT systems
		• Physical ledgers in use and select use of Tally software also observed.
7.	Three procurement processes: for where no bidding is required, where bidding is required, and when proprietary items are involved.	Use of GeM and e-Office is place but file movement still happening physically. Large number of physical documents, e.g., Sanction Order, contract order, supplier invoice, asset register, etc.
8.	Booking of Central Core Research Facility	Manual process
9.	Central Research Unit (CRU) workflow	Currently email is used, and it is planned that in future there will be a portal.
10.	IPR and Tech Transfer workflow	Manual process
11.	Institutional Ethics Committee workflow	Combination of online IT system and manual processes
12.	Stem Cell Committee workflow	Excel Sheet, Email and Manual process
13.	Serious Adverse Events committee workflow	Largely manual process and use of email (Gmail) for communication among members.

IT Infra and Networking

The computer network at AIIMS, New Delhi comprises of a managed network (New Campus Network) and an unmanaged network (Old Campus Network). WAN connectivity is provided through a 10Gbps connectivity provided by NKN with a redundant connection of 1Gbps link from MTNL.

The legacy campus network has a bandwidth of 1Gbps at its core and distribution whereas the New Campus Network has 100Gbps at the core, 40Gbps at the distribution and 10 Gbps at the access switches.

Understanding existing network architecture of AIIMS



- 10 Gbps NKN as the primary WAN connectivity link
- 1 Gbps MTNL Network as the backup WAN connectivity link

New Campus Network

- Connectivity between Core to Core 100 Gbps
- Connectivity between Core to distribution switch is 40 Gbps
- Connectivity between Distribution to access 10 Gbps
- Access to end point 1 Gbps (10Gbps is feasible if required) over CAT6A.
- 1 Gbps IPsec connectivity between other campus (NCI Jhajjar, NDDTC Ghaziabad, JPN Apex Trauma Centre)

Old Campus Network

- Connectivity between Core to access switch is 1 Gbps
- Connectivity between Access to End Point is 1 Gbps over CAT6

AIIMS Data Centre Facility – Overview

AIIMS have in-house data centres located on different location across AIIMS, Snapshot of the information w.r.t data centre as follow

S.No	Item	Count
1	Physical Server (Approx.)	100+
2	Virtual Machine	100+
3	Storage (SAN + NAS)	1-2 PB
4	Computer hardware managed by computer facility	3000+ Desktop
5	LAN Port	4500+
6	Switches	700+

Indicative List of Applications and Modules to be Developed by the MSP

Group 1 (Clinical Modules) Core EHR

#	Modules	Details
1	**Computerised Physician Order Entry (CPOE)**	Computerized physician order entry refers to the automated process of entering and sending treatment instructions, including medication, lab, and radiology orders. CPOE allows users to access the electronic medical record, electronically write the full range of orders, maintain an online medication administration record, and review changes made in an order by successive personnel, in addition to having some safety alerts, validations, and verifications through integration with clinical decision support systems. CPOE aims to increase efficiency, improve patient safety, and care. The CPOE should have at minimum the following features and functionality: • Diagnosis Entry • Order Entry • Order Review
2	**Clinical Documentation & Charting for (Physicians, Nursing, & Others)**	A tool that automates the direct patient care providers' documentation requirements, closing gaps in clinical documentation and enhancing information interoperability. The key aim of this module is to automate and enhance the quality of clinical documentation for physicians, nurses, nurse practitioners, allied health professionals, and other clinical personnel and enhance clinical workflows. The key features of the module include the following at minimum (not limited to): • Admission Note • Admission Assessment • Progress Note • E-Medication Administration Record (eMAR) • Discharge Note
3	**Clinical Decision Support System (CDSS)**	Clinical Decision Support System (CDSS) is the tool that provides timely information, at the point of care, to help inform decisions about patients' care. CDSS encompasses a variety of tools to enhance decision-making in the clinical workflow. The tools include computerized alerts and reminders in different forms. The targeted types of CDSS Interventions are (not limited to): • Immediate alerts (warning& critiques) • Event-driven alerts and reminders [Multi-patient monitors and dashboards] • Order sets, and protocols [Predictive and retrospective analytics] • Diagnostic support [Filtered reference information and knowledge resources] • Parameter guidance • Smart documentation forms
4	**Clinical Pathways**	Clinical Pathways is a tool based on evidence-based practice for clinical processes with a predictable clinical course, in which the different tasks required by professionals, departments, and systems involved in the patient care are defined, optimized, sequenced, and visually charted. The tool is used to assist healthcare professionals in assessing, triaging, and directing cases to

#	Modules	Details
		the appropriate treatment channels (i.e., Emergency, Acute Care, or others). The tool aims to: a) Improve efficiency in the use of resources, and b) Optimize health care delivery time. The scope of this module will only cover the excellence centres, Inpatient departments, and Emergency department.
5	**Patient Management & Administration (Registration, referrals, Scheduling, & ADT)**	Patient Management / Administration refers to the administrative part of the hospital information management system. Patient Management system should have the following components at minimum: 1. Patient Scheduling: Patient scheduling refers to the scheduling, management, and communication of patient appointments and visits, which mainly aims to improve operational efficiency, reduce waiting times, and enhance the overall patient experience. Patient scheduling should have online capabilities for patients to book their appointments, in addition to having the ability to provide patient preregistration, which will effectively enhance the registration process. 2. Patient Registration: Refers to the capturing of complete patient information, finding previous records, and keeping them constantly up to date with demographic, medical, treatment, and visits information. 3. Admissions, Discharge, & Transfer (ADT): A key feature in patient management is the automated documentation of admissions and discharge procedures, as well as transfers or referrals to different departments within or across the initiatives hospitals' facilities. 4. Bed / Ward Management: Involves monitoring patient flow within a hospital so that accurate data is gathered to identify bed availability across wards. This enables Nursing staff to move and place patients to wards that best suit their needs.

Group 2: Paraclinical Modules

#	Modules	Details
1	**Radiology Information System (RIS) and Picture Archiving & Communication System (PACS)**	PACS and RIS are two closely integrated systems that are either part of, or fully integrated with the overall EHR solution. The vendor may propose a unification approach for the current PACs systems used in the hospitals into one PACS utilizing one of the current PACs, or to propose a totally new PACS as part of his offering. Either way, a comprehensive integration between the HIS and PACs must be delivered as part of the final deployment. The main functions of PACS / RIS includes (not limited to): • Radiology Order • Patient Scheduling • Results distribution • Examination Performance tracking
2	**Lab Information System (LIS)**	LIS aims to improve lab data management within the laboratories and reporting data externally. LIS also improves processes, stores, manages data from all stages of medical processes and tests. LIS improves access to quality diagnostic testing and provide accurate, timely information for patient care, public health planning and policy decisions. LIS must have a Blood Management function that supports functionalities of a Blood Bank and helps in managing the storage of blood and blood items and maintain the stock. The basic functions are (not limited to): • Examination Master • Phlebotomy • Specimen Receiving • Specimen Check-In
3	**Pharmacy Information System**	Pharmacy Information system deals with the medication order review, verification, dispensing, and monitoring. It supports medication management for OPD patients, and issue of medicines to the in- patients in the hospital. Its functions include order management and communication (online drug prescription), order verification, preparation distribution, inventory management, dispensing, medication administration management, intervention and monitoring and should support billing of medications. A pharmacy system should provide support for at least, the following activities performed in the pharmacy: • Preparation, distribution, Inventory control, storage • Clinical intervention and monitoring • Medication related Clinical decision support (dose, Drug-drug interaction, allergy, duplication, contraindication

Group 3: Speciality Modules

#	Modules	Details
1	**Emergency (ER)**	The Emergency Room (ER) module is used to manage data in support of Emergency Department patient care and operations. This system supports the capture of clinical documentation including patient's administrative and clinical data i.e., quick registration, physicians, treatments, chargers, transfer, discharge, and any other clinical care. The basic functions of ER should be (not limited to): • Triage forms, documentation, and Screening • Intensive Monitoring chart • ER Admission Assessment • Injury / Poisoning notification forms • Patient handover documentation • Integration with Clinical Pathways and Clinical Decision Support
2	**Operations Theatre Management**	The Operation Theatres module is designed to provide integrated management of operation theatre processes and procedures. The operation theatre module's main function include (not limited to): • Create, view, or cancel OT Schedules (Surgery Request, Schedule confirmation, schedule review) • Surgical safety checklist • Consumables and consumables return management • Pre-operative record • Surgery Note • Postoperative record • Operation nursing record • Anaesthesia management
3	**Clinical Specialities Module**	Clinical specialty modules are modules that have the basic features of the core EHR modules (i.e., CPOE, Clinical Documentation, & Clinical Decision Support) but have additional functionalities, alerts, notifications, fields, and reports that can provide a framework and practical evidenced based guidance for physicians and clinical staff. Clinical Specialties can be either provided through whole modules dedicated for a certain specialty (e.g., Radiation Oncology, Dietary, or Diabetes), or will have some tools or configurations to configure special workflows, tabs, or fields for the specialties needed. Overall, it should provide the essential elements of health care system that facilitates high-quality care and provides streamlined processes and access to clinical professionals in their respective specialties. • It is not required to have dedicated specialty modules for every department or specialty (*As long as the requirements of that department/specialty can be covered by standard modules*). However, there are some specialties like Diabetes, Oncology, Radiation Oncology, and Dialysis that MUST have a full-fledged specialized module for them.

Group 4 Advanced EHR Modules

#	Modules	Details
1	**Reporting and Analytics**	Refers to all reports, inquiries, KPIs, and analytics performed on the hospital information systems landscape. Healthcare reporting and analytics aims to improve patient care, drive the change towards outcome and value-based care model, reduce operational costs, and improve overall patient satisfaction. The module must have a facility to enable IT team to build their own custom reports in a user-friendly way. The type of reports and analytics expected are: • Clinical and administrative KPIs • Hospital performance reports (Bed occupancy, waiting times, scheduling reports, etc.) • Operational performance reports by facility, department, and clinical staff • Quality reports (Incidents reporting, sterilization, safety practices, etc.) • Reports per module & specialty
2	**Nursing Management**	Nursing Management provides nursing staff the means to monitor and manage all nursing schedules as well as their assigned wards. Special units like ICU and OT are practically and effectively managed. The module should also track all services given to a patient connecting to their wards. It should also provide integration to the Physicians' workbench (CPOE and Clinical Documentation) to make sure the departmental functions of administrative and clinical systems of a hospital works properly.
3	**Patient Portal and Mobile/Smart Services**	A patient portal is a secure online website that gives patients convenient access to personal health information from anywhere or any channel (mobile / tablets) with connectivity. Patients can also connect through the portal to schedule appointments, request a variety of digital services, as well as engage, interact, and communicate with their healthcare providers and community with feedback, opinions, and experiences. Patient portals allow patients to do the following (not limited to): • Search doctor profiles by specialty • Patient preregistration • View doctors' schedules • View radiology and lab reports • Book an appointment • View official / approved sick note
4	**Health Information Management (HIM)**	Health Information Management (HIM) is the practice of acquiring, analysing, and protecting digital medical information vital to providing quality patient care. It is a combination of business workflows, science, and information technology. Health Information Management aims to streamline workflows. Accessing Information and completing through tasks through seamless integration with other EHR components. The key features include (not limited to): • Medical Terminology library (ICD, CPT, DRG, etc.)

#	Modules	Details
		• Merging medical records • Encoder functionality / solution
5	**Patient Billing & Accounting**	Patient accounting and billing are a system that provides patients' billing information based on their medical records. The system also should be able to monitor payments, calculate costs of services, and identify / validate errors or discrepancies in financial information. The key features include (not limited to): • Outpatient billing and payments • ER billing and payments • Inpatient discharge payment • Inpatient & Outpatient approvals • Patient Billing Reports (Costing, Billing, department wise, patient wise, etc.)

Group 5 Support Functions

#	Modules	Details
1	**Finance and Budgeting**	• General Ledger, Accounts Payable, Accounts Receivable • Asset Management, Banking management • Cash Management/ Treasury • Budgeting/Analysis, • Costing and Financial Control • Financial / MIS Reporting Requirements
2	**Inventory Management or Material Management**	• Procurement Lifecycle Management • Material Management Master Issues & Returns from central store • Issues & Returns from sub stores • Issues & Returns in case of Stock Transfers • Indent creation • Purchase requisition and Purchase order • Goods Receipt Note • Indent review and transfers • Return indents • Return to vendors • Stock adjustments • Audit trail Material discarded & write off Manage inventory • Vendor records management • Physical inventory verification • Material requirement planning RFQ/Tendering
3	**Asset Management**	• Asset Management: Asset Purchase Requisition • Asset Procurement • Asset Condemnation • Asset Maintenance • Asset Tracking

#	Modules	Details
4	**HRMS**	• Employee Master • Organization Management • Human Resource Policies, Rules & Regulations • Manpower Planning • Recruitment & Selection • Annual Performance Assessment Report • Training and Development • Time and Leave Management • Compensation and Benefit Management • Payroll and Grievances • NOCs

Group 6 Additional Functions

#	Modules	Details

1	**Academic Management and eLearning**	• Seamless management of all in-house activities
		• Efficient Examination Management: Offline & online examination management
		• Role-based login access for data security
		• Attendance Automation System: Biometric & RFID Student Attendance Management System
		• Library Management System:
		  ○ Acquisition and Cataloguing
		  ○ Serial Control
		  ○ Circulation
		  ○ M-OPAC / OPAC: Mobile Online Public Access Catalogue
		• Self Service portal for Faculty/ Students / staff
		• Academic planning and execution for faculty
		• Campus management
		• Student Information Records System
		• Designation & Hierarchy Management
		• Alumni Management
		• Dashboard based access for different stakeholders

2	**Research Management**	• Support for Researchers to use tools of their choice licensed and open-sourced based on project needs • Platform and services to support the defined institutional aims and objectives for Research

#	Modules	Details
		• Specified targets and outcomes principally in the domain of Health and Life Sciences (HLS) • Demonstrable experience of deep Topical themes (e.g Therapeutic Area, Public Health etc.) and Translational Research capabilities • Demonstrable engagement with World Class Research and Regulatory bodies like FDA, NHA, Leading Research Centers and Universities etc • Demonstrable experience in Platforms and Tools across research lifecycle and different class of users. The aim would be to provide to Research Teams environments that facilitate Reproducible Research and lend credence to Research Papers where members of the institution are involved • Increase Collaborations • Generate more high impact, innovative project ideas • Increase success rates and external research funding • External research Assessment • Research Repositories • Creating Data Lakes for ease access by researchers • Grants management lifecycle • Resource / Fund Utilization management

EHR must be integrated on real time basis with list below:

a) Nursing Calling system
b) ICU system
c) Mobility application- patient and provider apps
d) RIS-PACS
e) ERP modules
f) Codification standards like ICD-O, LOINC etc
g) Drug DB like CIMS
h) CDSS
i) Queue management systems
j) Payment gateway
k) Active Directory Integration
l) Audio Video Conferencing Solution for virtual services

Solution must be integrated with:

a) RFID system

b) Barcode systems
c) Building Management System
d) IVRS
e) Webcams
f) Patient portal (for online appointments, report retrieval etc.)
g) Label printers
h) Card printers
i) Queue management system
j) Handheld/ Mobile devices
k) SMS/Messaging & e-mail gateways (Bi-Directional)
l) Medical equipment
m) PABX (Telephone)

Data integration and Migration

The indicative list of activities to be performed by the MSP to migrate the Application and Data from the Legacy system to the New system is mentioned as below

- Assess the Current State Application and Data Architecture
- Assess the Current State Infrastructure
- Determine the Target State Architecture keeping in mind the aspects to be considered in the TO-BE Architecture
- Finalize the Scope of Migration and the Guidelines to be adhered during Migration
- Formulation of Migration Strategy
- Approval of the Migration Strategy by the Client or the Client appointed Agency
- Create, test, deploy and run the Migration Scripts
- Provide Periodic Reconciliation Status Report
- Validation of the data migrated in the Target System by the Client or the Client appointed Agency
- Perform necessary corrections (if required)
- Declaration of the Migration as Successful (Post successful validation of the data (in the Target System) and the record count and Parallel run (if required).
- Documentation of the Migration activity and sign-off from the Client.

Digital Roadmap	**Ability to integrate with Point of care devices, PDAs etc. so that clinicians can electronically enter details in case sheet/forms**

	Interoperability integration capability: ● Integration (HL7/ FHIR) Support
	Ability to track patient cost- Activity based costing and analytics
	Availability of mobile application for both clinician and patient
Non-Clinical system	Integration with ERP (HR system, Supply chain, etc.)
	Integration with QMS and Incident management system
	Integration with Data warehouse/Data lake system
	Integration with Insurance payers for procedures that require preauthorization and online status updates
	Ability to digitize patient record and integration with medical dictionaries
Legacy Data Migration & Integration	The proposed solution requires migration of data from existing silo and legacy systems.
	The System should support automated Data Migration with minimal manual intervention.
	System should support activities such as Explore and Assess the Source, Migrate the data and ensure the accuracy of the migration post implementation.
	The System should be fully integrated across modules, functional areas, and all external Systems through Service Oriented Architecture (SOA) and design patterns.
	A comprehensive strategy for data migration and integration is required

The underlying software platform needs to be upgraded / migrated as necessary, depending on the approach adopted by AIIMS. The infrastructure required (server-side, network, & client side) needs to be augmented where possible and replaced where obsolete to ensure continued support from the OEMs and deliver the solution as per the service levels defined by the AIIMS New Delhi.

PART III: TARGETTED FIRMS FOR INDUSTRY CONSULTATION

1. Criteria for Participants for attending Industry Consultation

#	Type of Firm	Eligibility
1	Managed Service Provider for large turnkey digital health projects implementation	A. MSP should have implemented large turnkey digital health transformation project in country/state or equivalent wide which includes core application development and implementation with deployment on DC/DR (Cloud or on premises DC) and Integration with external applications and devices. Min 3000+ user and 200+ technical team deployment for project delivery (onsite\offsite) in last five financial yrs. (i.e., 2016-17, 2017-18, 2018-19, 2019-2020 and 2020-21). The company should be a registered entity in India for a minimum of 10 years B. Must have prior experience working as Implementation partner or IP owner of global EMR\EHR or HIMS or Provider Solutions (Patient Engagement\Care Management) and should have min 4 go Live projects with global reputed Healthcare Provider which shall have min 1 Million patient\beneficiary\user transaction p.a. C. Must have the experience in undertaking at least one change management in healthcare projects for more than 1000 beds in a single premise.
2	Hospital Information Management system OEM or Implementation partner	The company should be a registered entity Globally for a minimum of 10 years and must have a Partner in India. A. OEM or Implementation Partner should have implemented the HIMS in any organization/Hospital that have achieved EMRAM Stage 6. B. Must have minimum 2 HIMS Implementation experience globally with 90% General EMR adoption and minimum 11 out of below given functional areas and modules (details of these have been provided in

#	Type of Firm	Eligibility
		Indicative List of Modules to be Developed by the MSP from Group-1 to 4) must be in a Go-Live stage. OR A. Firm must have experience of implementing HIMS solution in at least one 2500 bedded hospital or a group of Hospitals (Public or Private) with atleast 1000 bedded Hospital implementation in a single premises. Minimum 11 out of below given functional areas and modules (details of these have been provided in Indicative List of Modules to be Developed by the MSP from Group-1 to 4) must be in a Go-Live stage. 1. Computerised Physician Order Entry (CPOE) 2. Clinical Documentation & Charting for (Physicians, Nursing, & Others) 3. Clinical Decision Support System (CDSS) 4. Clinical Pathways 5. Patient Management & Administration (Registration, referrals, Scheduling, & ADT) 6. Radiology Information System (RIS) and Picture Archiving & Communication System (PACS) 7. Lab Information System (LIS) 8. Pharmacy Information System 9. Emergency (ER) 10. Operations Theatre Management 11. Clinical Specialties Module 12. Reporting and Analytics 13. Nursing Management 14. Patient Portal and Mobile/Smart Services 15. Health Information Management (HIM) 16. Patient Billing & Accounting • Integration with minimum 2 different PACS vendor, 50+ Lab Analyzer Integration, CDSS\CIMS, Voice to Text, Codification

#	Type of Firm	Eligibility
		standards like ICD, LOINC, SNOMED CT etc…, QMS, Payment Gateway, Active Directory, Any Govt Health Application via API. • Minimum 2 ERP Integration (Finance, Materials and Human Resource) experience with own HIMS • Minimum 100+ Inhouse HIMS Tech team (Functional Consultants\BA, Developers and Implementation\Integration Engineers).
3	ERP OEMs or Implementation partners for Finance, Stores & Procurement, HR, Payroll etc.	Firm should have implemented the following ERP packages in a single Government Hospital or Any large Govt entity with at least 500 licenses/users in single or order or multiple order in the last 5 years. At least Modules implemented: - **Finance and Budgeting** (General Ledger, Accounts Payable, Accounts Receivable, Asset Management, Banking management, Cash Management/ Treasury, Budgeting/Analysis, Costing and Financial Control, Financial / MIS Reporting Requirements) - **Inventory Management or Material Management** (Material Management Masters(MMM) Issues & Returns from central store(I&R) Issues & Returns from sub stores(I&R) Issues & Returns in case of Stock Transfers(I&R) Indent creation(IC) Purchase requisition(PR) Purchase order(PO) Goods Receipt Note (GRN) Indent review and transfers(IRT) Patient level issue(PLS) Return indents(RI) Return to vendors(RV) Stock adjustments(SA) Audit trail(AT) Material discarded & write off Manage inventory(MI), Vendor records management (VRM) Physical inventory verification (PIV) Material requirement planning RFQ/Tendering) - **Asset Management** (Asset Management: Asset Purchase Requisition (APR) Asset Procurement (AP) Asset Condemnation (AC) Asset Maintenance Asset Tracking (AT))

#	Type of Firm	Eligibility
		- **HRMS** (Employee Master(EM) Organization Management (OM) Human Resource Policies, Rules & Regulations (HR-PRR), Manpower Planning (MP), Recruitment & Selection (R&S) Joining (JO), Probation & Confirmation (P&C), Succession Planning & Career Development (S&C), Performance Management and Appraisal or APAR (PMA), Promotion (PRO), Training and Development (T&D), Time and Leave Management (TLM), Compensation and Benefit Management (CBM), Payroll (PAY), Grievances (GR), E – Exit (Full and Final Settlement) (F&F)) The company should be a registered entity in India for a minimum of 10 years
4	Academics/Learning Management System OEM or Implementation Partners	A. The company should be a registered entity in India for a minimum of 10 years. Must provide all requirements of MCI (Medical Council of India) straight out of the box. B. Solution must have been developed using Open-source technologies only and should be compatible to deploy both on Cloud and On-Premises. C. The proposed solution must have been implemented in at least 5 Universities in India or abroad during last 5 years with the following modules. The solution should have a successful implementation at any University/ College / Education Trust with at least 10,000 students during last 5 years. Below are the min modules and functional areas for AIIMS. - Admission - Academics, - Examination, - Research, - Payroll/Salary, - Fee, Budget, and Purchase - eLearning System or Knowledge Management System

#	Type of Firm	Eligibility
		- Integration Capability with main ERP of University - Course Content Management System - Student Administration (attendance system), faculty and classroom management - Hostel Management - Library Management and Digital Library Solution must have in-built Artificial Intelligence (AI) capabilities to provide online proctoring, Mobile App, Voice enabled services and Chabot's, Email integration, Knowledge management module and Content Management.
5.	Research Information Management System OEM or Implementation Partners	Firm should have the ability to showcase both in-house and cloud-based models. Support for Researchers to use tools of their choice (licensed and open-sourced based on project needs. Firm should have the platform and services to support the defined institutional aims and objectives for Research, with specified targets and outcomes principally in the domain of Health and Life Sciences (HLS). If Organization is into Areas other than HLS, they must be able to show dedicated Business Units for HLS. In such cases they may showcase support for Research in non- HLS areas for overall credibility (in addition to HLS). A. Demonstrable experience of deep Topical themes (e.g Therapeutic Area, Public Health etc.) and Translational Research capabilities B. Prefer to have demonstrable experience in Platforms and Tools across research lifecycle and different class of users. The aim would be to provide to Research Teams environments that facilitate Reproducible Research and lend credence to Research Papers where members of the institution are involved.
6	Radiology Information System- Picture Archiving and	A. The company should be a registered entity in India for a minimum of 10 years. The vendor should have at least 10 PACS implementations in a Govt/private teaching hospital with more than 1000 beds and 10 modalities with

#	Type of Firm	Eligibility
	Communication System) OEM	minimum cumulative 1 Lakhs CT and MR Scan p.a. in single location in India/ abroad. B. PACS should support unlimited number of users (radiologist/physicians/ward etc.) and unlimited number of Modalities in the hospital. C. Prefer to have a vendor certify that they will comply with all existing global industry standards including USFDA or CE, HL7, HIPAA compliance and IHE certification. D. PACS should have reporting and Web clients. The reporting clients should work in server client model so that the images and necessary reports are available instantly without having to retrieve it. It should be possible to automatically send specific modality reports or specific organ system reports to a particular set of radiologists for finalizing the reports based on the pre-configured rules.
7	Big Data and Advance Analytics for large Healthcare Projects	The Analytics Suite should be a Commercial-Of-The-Self (COTS) and must be deployed in minimum three sites of Central or State Governments in India with min two large Healthcare projects. Must have a presence in India for last 10 Years. The OEM must be in leader's / challenger's quadrant in Gartner magic quadrant in last 5 years Data Science Platforms (2017, 2018, 2019, 2020 and 2021) respectively. Must have below inbuilt capability in product: 1. The solution should have pre-built libraries for standardization of INDIA specific data. 2. The solution should provide in-built analytical transformations for statistical functions such as correlations, distribution analysis, one-way frequencies, summary statistics etc. as part of the ETL process flow.

#	Type of Firm	Eligibility
		3. The solution should have the ability to use In-Memory Analytics to enable users to conduct Fast, Thorough Explorations and Analysis on your data from different data sources across the Enterprise. 4. The solution must support containerized analytics like Docker that allows data scientists and analytical teams a flexible DevOps environment for working with containerized Analytics in the cloud. 5. The proposed solution contains crawling capabilities which should be able to retrieve Web pages that go many layers deep originating from a specific URL. It should also be able to retrieve not only Social media content, but also related social media metadata (followers, friends, demographics, comments etc.)
8	IT Infrastructure and Services Partners for DC/ DR, LAN, WAN, Security etc.	IT Infrastructure Partner should have experience of successfully completed/be in process of executing 5 large IT Turnkey projects and out of that minimum one Healthcare Project in India with Govt. Three projects must have min below 3 components as 50% of Scope of work. 1) Data Center and Disaster Recovery 2) Networking including LAN/WAN/Wi-Fi (Campus LAN & WAN) 3) Facility Management/Operations Management 4) Security Operations/SOC
9	Lab Information Management System (LIMS) OEM or Implementation partners	• The LIMS vendor should have experience in managing the LIMS solution deployed in a single / multi location with more than 20-30 lab departments. • The LIMS vendor should have managed the interfacing of more than 100 lab equipment either in unidirectional/bidirectional manner using HL7/ASTM

#	Type of Firm	Eligibility
		technology in a single location or in connected multi-location.
10	Other OEMs and Innovative Solutions (Document Management System, Patient Health Record, Web Portal, Facial Recognition System, Emergency Health Command and Control System, Handwriting recognition applications, Speech to Text)	• Respective OEM should have implemented at least 5 Projects (More than 500 bedded Hospital) in Health Sector and out of which at least 3 should be in Govt Sector India or outside. • OEM should be in business for the last 5 years with positive net worth • OEM solution must support Open-Source framework and can be deploy in Private Cloud or on premise.

2 . Salient points for Industry Consultations

i) **This Industry Consultation is not an offer and is issued with no commitment. Any Response to Industry Consultation will not advantage or disadvantage for prospective bidders in any future stages.**

ii) **All responses to this Industry Consultation have to be sent via email only to imuis@aiims.edu**

iii) AIIMS, New Delhi reserves the right to further invite firms participating in this industry consultation for any presentations or discussions if required.

iv) AIIMS reserves the right to withdraw this consultation if AIIMS determines that such action is in the best interest.

v) Timing and sequence of events resulting from this Industry Consultation shall ultimately be determined by AIIMS, New Delhi.

vi) No oral conversations or agreements with any official, agent, or employee of AIIMS, New Delhi shall affect or modify any terms of this Industry Consultation.

vii) Applicants who are found to canvass, influence, or attempt to influence in any manner the qualification or selection process, including without limitation, by offering bribes or other illegal gratification, shall be disqualified for participation in any future activity as an outcome of this industry consultation.

PART IV: ANNEXURE – RESPONSE FORMATS

All responses to this Industry Consultation have to be sent via email to

imuis@aiims.edu

under cc to: pmu@aiims.edu / aiimspmu@gmail.com

&

1. FORM I: COVERING LETTER

(Company letterhead)[Date]

To,

The Convener

Project Management Unit

AIIMS, New Delhi

(via email: imuis@aiims.edu)

Dear Sir,

Ref: Participation in Industry Consultation for "Design, Development and Implementation of Integrated Medical University Information System", AIIMS, New Delhi

Having examined the Invitation for Industry Consultation, the receipt of which is hereby duly acknowledged, we, the undersigned, intend to submit a qualification requirement in response to the Request for Participation in Industry Consultation for "Design, Development and Implementation of Integrated Medical University Information System.

We are hereto submitting our response as required by the invitation for participation in Industry Consultation via email on imuis@aiims.edu.

Primary and Secondary contacts for our company are:

	Primary Contact	Secondary Contact
Name:		
Title:		
Company Name:		
Address:		
Phone:		

Mobile:		
E-mail:		

We confirm that the information contained in this response or any part thereof, including its exhibits, and other documents and instruments delivered or to be delivered to All India Institutes of Medical Science, New Delhi (AIIMS, New Delhi) is true, accurate, verifiable, and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the AIIMS, New Delhi in their intent of this Industry Consultation.

We agree to unconditional acceptance of all the terms and conditions set out in the Invitation for Industry Consultation and understand that AIIMS, New Delhi may or may not use the information submitted by us for furtherance of their IT solutions development.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Dated this Day of **2022**

(Signature) (In the capacity of)(Name)

Duly authorized to sign the documents for and on behalf of:

(Name and Address of Company) Seal/Stamp of the firm

2. FORM II: GENERAL DETAILS AND BACKGROUND OF THE ORGANIZATION

Details of the Organization	
Name of organization	
Nature of the legal status in India	
Legal status reference details	
Nature of business in India	
Date of Incorporation	
Date of Commencement of Business	
Address of the Headquarters	
Address of the Registered Office in India	
Other Relevant Information i.e., Number of Employees with Technical Skill:	
(Please attach appropriate supporting evidence for information furnished above)	

Background of the Organization and other details ((limited to 400 words)**)**

3. FORM III: FINANCIAL DETAILS OF THE ORGANIZATION

Financial Information			
	FY 2018-19	FY 2019-20	FY 2020-21
Turnover (in INR crores)			
Other Relevant Information			
(Please attach appropriate supporting evidence for information furnished above)			

4. FORM IV: PREVIOUS PROJECT EXPERIENCE FOR MSP, Other Solution Partners and Implementation services

(Please insert this section for different Projects)	
General Information	
Name of the project	
Name and contact details of the client	
Nature of Client (Public/Private)	
Current Status of Project (Implementation Underway, Implemented Done, Operations and Maintenance Phase)	
Project Details	
Description of the project	
Project for Hospital/Medical College	
Total Number of beds in the institution/integrated institutions (which were in scope): - In a single location - Overall (consolidating all locations)	
Project Components	
- HMIS / EMR (Y/N) If yes, Name of modules implemented and their respective adoption (In Percent)	
- ERP implementation (Y/N) If yes, Name of modules implemented and number of user base.	
- Education Management System (Y/N) If yes, Name of modules implemented and number of student base.	
- Integration of HIMS with PACS, ERP, Equipments etc..(Y/N)	

If yes, which all integrations done ..	
- Research Information Management System (Y/N) If yes, then please provide details.	
- Any Legacy Data Migration (Y/N) If yes, how much data migrated both structured and un-structured	
- Mobility Solution (Y/N) If yes, number of applications submitted or data size created (in MB)	
- Emerging Technologies or Innovative Solutions in Healthcare Provider Domain If yes, please provide details about use case specially in AI/ML, Big Data, Advance and Predictive analysis, RPA, AR, IoT etc…	
- Data Centre/ Data Recovery (Y/N) If yes, size of DC/DR (Number of racks, servers, storage etc and if any other passive/active equipment)	
- Campus LAN/ WAN (Y/N) Number of datapoints, AP, switches etc	
- Facility Management System like BMS (Building Management System) , Nursing Calling System, Integrate Command and Control Centre and any other (Y/N)	
Outcomes and Impact of the Project	
Business Processes across different domains	
Applications	
Technologies Used	

IT Infrastructure	
Operations & Services	
Number of Locations / Sites	
Other Details	
Total Duration of the project (no. of months, start date, completion date)	
Total cost of the project	

5. FORM V: Please share a case study of the project having similar scope of work

The case study should have suggestive components mentioned below in line with the current requirement for Design, Development, Implementation, Roll-out and Maintenance of defined IMUIS (Integrated Medical University Information System) in this document (components may be increased as required):

1. Case Study Title
2. Objective
3. Scope (Coverage in terms of facilities, Number of Beds, Man month)
4. Strategy
5. Challenges
6. Result
7. Impact on Patient Services, HR Services and overall effectiveness
8. Important stakeholders coordinated and contributed