Informatics

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DIGITAL INDIA Awards 2022

Digital India Awards Ceremony
Infocus pg. 22

एनआईसी NIC

Happy New Year

2023

Editorial

Data has evolved as a valuable resource for both citizens and governments. With the rise of High-Speed Internet, Cloud Storage, and Artificial Intelligence, even small organisations can now leverage data to acquire an accurate view of evolving citizen demands. It should come as no surprise that data provides tremendous potential for enhanced growth.

As the country has undergone significant changes, almost every sector has benefited from the availability of data. During the COVID-19 pandemic, data was extensively used for contact tracing, hotspot prediction, and supply distribution. The necessity of data became clear especially during the implementation of lockdowns, when critical situations demanded prompt responses based on data-driven decisions.

Data also plays a critical role in producing significant societal returns, which is a promising sign for the future. Henceforth, data as an asset must be nurtured and used along with the responsibility of protecting citizens from its potential misuse.

Continuing the tradition of excellence in 2023, we are pleased to present the coverage of the Digital India Awards 2022, a landmark event held to recognise excellence in eGovernance, at which the Honorable President of India, Smt. Droupadi Murmu presented 22 winning teams in seven award categories. In addition, we have a collection of articles commemorating the influence of NIC on the lives of ordinary citizens. We covered the success stories of Assam, Chandigarh, and Goa, as well as four award-winning districts, namely Puri, Sri Ganganagar, Leh, and Bilaspur. This edition also presents MeriPehchaan and ABHA, two citizen-centric digital services designed and developed by NIC. These are followed by our regular news sections, which include Appscape, In The News, International eGov, and Accolades.

Behind the scenes, we are continuously enhancing the publication by improving the quality of our content and design. Your feedback is valued most. It would be much appreciated if you could take out some time to write to us with your opinion and suggestions which may be addressed to editor.info@nic.in.

Here's wishing you a very warm and prosperous 2023. Enjoy reading, and stay safe and healthy.

-Editor

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Message

Rajesh Gera
Director General, NIC

I hope that you and your loved ones have a wonderful start to the new year. With each passing year comes the promise of a new beginning and the opportunity to make positive changes in one's life.

Today, one way to describe us humans is as technological beings. Our beliefs, culture, and lifestyle have all been impacted by the numerous technological innovations that have emerged throughout history. Technology has transformed our lives into a global phenomenon and is now one of the most influential forces in shaping our world.

We are fortunate that both our Government and Citizens have recognised the power of technology and embraced it with open arms. For the last four and half decades, their combined energies have spirited our minds and inspired us to come up with a number of digital offerings to meet their growing needs. These offerings have not only integrated a large section of historically marginalised groups into the mainstream section of the society, but made them a part of active governance. Our recent offerings – Ayushmaan Bharat Health Account (ABHA), OneMap City Series, and Integrated Road Accident Database (iRAD) — are just a few examples of it.

Invigorated by the support and appreciation showered on us, NIC is entering a new phase of evolution. Digital India Awards 2022 paves the way in this regard. These awards have propagated NIC's human-centred approach to technology and served as a model for other organisations to create digital solutions for the larger good. Further, the recently assumed presidency of the G20 forum has heightened the role of NIC as the digital brain to the Government. It has incited us to develop solutions that facilitate greater knowledge-sharing and ensure reaching to the remaining citizens in remotest regions of the country.

I am confident in our capacity to seize the opportunities before us and bring honour to the organisation as a team.

I would like to extend my warm wishes again for 2023 and beyond.

-Rajesh Gera

Assam State

Ushering in a new era of good governance by strengthening efficiency, transparency & effectiveness through ICT

Edited by **MOHAN DAS VISWAM**

NIC Assam State Centre started its operations in 1986. Since then, it has been the ICT backbone for the State by connecting various state government offices with the rest of the world through NICNET and NKN nodes. It oversees 33 District Centres, which act as the

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NIC Assam State Centre was established with a goal of writing an inclusive and sustainable growth story for Assam - the land of red river and blue hills - through the effective use of information and communication technology. Since its inception in 1986, the State Centre has collaborated with the State Government to formulate ICT strategies for developing an efficient, effective, and robust eGovernance system for the state and achieving a common dream of Digital Assam.

incubation ground for new ICT initiatives across the districts. It also manages the Regional Centre of Excellence for Application Security (RCoEAS) in Guwahati, which aims to strengthen and accelerate application security adoption by ensuring the security of web applications and server infrastructure across all North Eastern states.

ICT Initiatives in the State

Some of the major ICT initiatives implemented by the NIC Assam are:

Mission Basundhara
(https://basundhara.assam.gov.in/)

Mission Basundhara is a flagship program launched by the Department of Revenue and Disaster Management, Government of Assam in a bid to digitise and integrate maps and land records of Assam under the Digital India Land Records Modernisation Programme (DILRMP). It aims to aid in securing the land rights of indigenous population, especially poor and disadvantaged sections and get their land related works done. For this purpose, 672 non-cadastral villages were surveyed and 18,789 cadastral villages of 27 districts were re-surveyed. Further, a portal of the same name was launched to streamline land revenue related services.

In the first phase, citizens could apply for 10 services. Out of 8,13,981 applications received, 5,82,688 were successfully processed by the set deadline of 8th May 2022. The phenomenal success of the first phase prompted the State Government to launch Mission Basundhara 2.0 on 14th November 2022 with the addition of seven new services. Since the launch of the second phase, a total of 2,54,250 applications have been received till date. Further, the online payment of land revenue for multiple properties using a single payment window was promoted in the second phase. These services are also integrated with the Assam Right to Public Services portal.

In addition to the Mission Basundhara, SVAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas) – a Centrally Sponsored Scheme by Ministry of Panchayati Raj – for mapping of land parcels using drone technology and providing Record of

Rights to village property owners has also been implemented. As of now, 96.48% of non-cadastral villages have been surveyed and 36.86% non-cadastral villages have been re-surveyed under this scheme.

Project Sadbhavana
(https://sadbhavana.assam.gov.in/)

In an effort to provide responsive administration to the citizens, the State Government initiated Project Sadbhavana to clear pending cases opened prior to 10th May 2021 across all state government departments. This ambitious project aimed to make governance more citizen-friendly by ushering in a new era of eGovernance. It had three primary objectives:

1. disposal of old pending cases (prior to 10th May 2021) through applications received within a 3-month window from citizens through the Sadbhavana Portal.

2. closing of all physical files which were opened prior to 10th May 2021 by closing all pending matters in those files.

3. migration of all Departments to eOffice by 2nd October 2022.

The project was closely monitored by an Interdepartmental Coordination Committee chaired by the Chief Secretary Assam, with the ARTP & PG Department, which was responsible for its implementation and review of the disposal of applications. After the successful completion of the initial phase, the Sadbhavana Portal is being made available as a permanent platform for citizens to seek a resolution to files pending in any Department, Directorate and Deputy Commissioners Office by submitting a request to the concerned office through the portal.

eOffice
(https://eoffice.assam.gov.in/)

eOffice implementation in Assam first started in the year 2017. As a result of Project Sadbhavana, all departments at the Assam Secretariat have been completely migrated to the eOffice by 2nd October 2022. In its latest phase, Offices of Deputy Commissioners in all districts of Assam were boarded to the system by 1st January 2023. Further, in subsequent phases, the system will be rolled out to the Directorates, Commissionerates, District offices and Sub-Divisional offices with the goal of achieving 100 percent electronic file movement by 30th June 2023. The implementation of eOffice has paved the way for a more efficient and transparent governance in Assam.

Digital transformation for improving the quality of lives has been one of the cornerstones of our system of governance. Taking inspiration from Hon'ble Prime Minister Shri Narendra Modiji's 'Digital India Programme' for transforming India into a digitally empowered society and knowledged economy, we have endeavoured for empowering our people especially the youth digitally. We took several initiatives and created a system to meet the needs of the people so that they may have fair reach and access to government services digitally.

In this mission, NIC Assam has made immense contribution towards bridging the digital divide in Assam and promoting Governance. Our government cannot allow the Digital Divide to become a barrier between the people. Thereby, appreciating our resolve, NIC has shown yeoman spirit in taking up the work of digitalisation and pioneered in many digital initiatives.

I particularly appreciate NIC's projects in Land Records, Transport (CM-TRANS), Website Standardisation (ePrastuti), Office Automation (Office), CM Dashboard, Elections, Pension (Kritagyata), Grievance Redressal (CPGRAMS), PDS, eGRAS, Procurement, Courts etc. We have excellent co-ordination with NIC and NIC has always been committed to realise the digital potential of our State.

I hope the NIC newsletter 'Informatics' gives an exhilarating account of how NIC has been on the forefront to carry forward 'Digital India Programme' to champion the cause of inclusive growth. Hope the newsletter is well received by all.
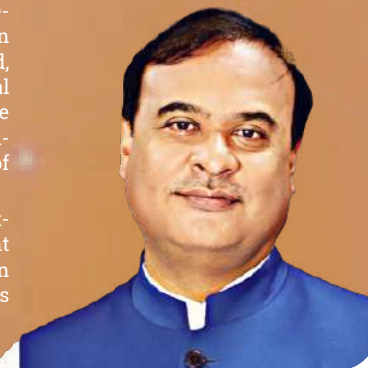
Dr. Himanta Biswa Sarma
Chief Minister, Assam

Chief Minister's Transport Randomised Allocation Networked System (CM-TRANS)

CM-TRANS is an online work allocation system that aims to improve service delivery and eradicate corrupt practices across all District Transport Offices (DTOs) in the state.

The novel system is conceptualised by the Hon'ble Chief Minister of Assam, Dr. Himanta Biswa Sarma and implemented by the State Centre in collaboration with the Assam State Transport Department. It covers all contactless transport services being offered by the State Transport Department.

The system does away with the concept of verifying and approving applications in a local DTO, but instead, allocates the application randomly across 32 DTOs based on their individual workloads. The applications are automatically routed to DTOs with less work, thereby, ensuring greater efficiency and faster service delivery.

Ease of Doing Business (EoDB) in Assam Portal
(https://eodb.assam.gov.in/)

Ease of Doing Business (EoDB) in Assam is a single window clearance system, which has been developed as a consequence of 'Assam Ease of doing Business Act 2016.'

It facilitates an all-inclusive mechanism for investors and acts as a single authoritative source of information for investors on government policies, incentive schemes and the availability of infrastructure.

As of December 2022, 69,833 new Common Application Forms (CAFs) had been registered on the portal for a total of 1,50,552 service licences. Out of which, 67,882 CAFs have been approved and 1,26,828 licences have been issued.

▼ Fig. 1.1: Hon'ble Chief Minister, Dr. Himanta Biswa Sarma during an interactive session with various state government officials to ensure the readiness and smooth operation of Project Sadbhavana

Kritagyata
(https://kritagyata.assam.gov.in/)

Kritagyata is an offering of the Hon'ble Chief Minister to the State Government Pensioners as a mark of gratitude towards their long service to the Assam Government. It is an all-comprehensive pension sanction and payment tracking system, which aims to streamline and simplify pension processing in the state, thereby ensuring smooth disbursement of pensionary benefits to the retirees.

Kritagyata is based on the Bhavishya Platform, developed by NIC for Central Government employees. It has a user-friendly interface which provides all required information, automates calculation of pension benefits, enables real-time application status tracking, and initiates activity and status alerts. Till date, a total of 10348 pension cases have been processed and 7166 PPOs have been generated.

Further to augment the Kritagyata services, Jeevan Pramaan (Digital Life Certificate System) has also been rolled out in the state around July 2021 to facilitate retirees to give life proof online through registered devices instead of having to personally visit disbursing banks. Till date, a total of over 6,000 DLCs have been generated and 2,500 DLCs have been successfully processed.

Assam CM Dashboard
(https://cmdashboard.assam.gov.in/)

Assam CM Dashboard is an all-comprehensive dashboard developed to assist the Office of Hon'ble Chief Minister of Assam, in order to assess and evaluate the performance of various eGovernance schemes in real-time to the level of Gram Panchayats. It has helped the government to become more productive, efficient and transparent. The dashboard fetches data dynamically through APIs from all eGovernance schemes and reflects the data against pre-defined Key Performance Indicators (KPIs) in a visually-appealing manner. As of now, the dashboard displays data from 50 projects, with 22 more schemes in the near future.

Assam Right to Public Services (ARTPS) Platform
(https://rtps.assam.gov.in/)

The ARTPS platform is a noteworthy initiative by the Government of Assam to provide an end-to-end citizen-centric service delivery. It draws its power from the Assam Right to Public Service

▲ Fig. 1.2: Hon'ble Union Minister of Finance, Smt. Nirmala Sitharaman in the august presence of Hon'ble Chief Minister, Himanta Biswa Sarma launching the ARTPS Portal to facilitate digital citizen services by the various state departments under one roof.

Act (2012) and aims to provide citizen services in a time bound manner. Around 128 services of 20 state government departments, three autonomous territorial councils, and one municipal corporation have already been brought under this platform. The platform includes the Service Delivery Portal, Grievance and Appeal Management modules and a comprehensive MIS Dashboard.

The platform is going to be renamed as "Sewa Setu", marking the efforts by state government to provide all-inclusive governance. It will be a single-entry point to access a variety of digital G2C (ARTPS, non-ARTPS), G2B, B2C, B2B services, as well as utility services.

Niyukti
(https://niyukti.assam.gov.in/)

Niyukti is a comprehensive web solution developed for recruiting agencies to advertise and fill up vacancies in their respective departments. It is developed using the open-source technology stack and audited for security. As of December 2022, a total of 37 recruitment drives have been made for the total posts of 46 vacancies, for which the portal has received 74,476 applications.

eRupantor
(https://erupantor.assam.gov.in)

eRupantor is an end-to-end monitoring system that monitors the physical and financial progress of all development projects under various state government schemes and programs, viz. MLAADS, United Fund and SUHRID. Till date, under these

schemes, a total of ₹1615.47 crore have been sanctioned at the state level and ₹897.64 crore have been sanctioned at the district level through the system. In future, two more schemes viz. "Assam Darshan" and "Axom Adarxo Gram Yojana" will also be boarded to the system.

Public Distribution System (PDS) Assam

PDS aims to facilitate the supply of food grains and distribution of essential commodities to a large number of poor people through a network of Fair Price Shops (FPSs) at a subsidised price on a recurring basis.

In Assam, NIC has provided all centralised software solutions for smooth functioning of the system. It hosts and maintains several ePDS software and provides all technology support for the digitization, in addition to handling massive data generated by the system.

As on 29th December 2022, Assam has over 56 lakh ration cards with 2.02 crore beneficiaries. Among 34,095 FPSs across the state, 98.68% of sales transactions of food grains are carried out through ePoS devices. Among the Ration Cards, 98.6% are Aadhaar-seeded.

One Nation One Ration Card (ONORC)

ONORC is an ambitious technology-driven endeavour of the Department of Food and Public Distribution, Government of India to ensure seamless delivery of subsidised food-security entitlements to all beneficiaries covered under the National Food Security Act (NFSA) 2013, irrespective of physical location anywhere in the country. In order to provide the same facilities to migrant workers, the State Government implemented the system on 1st June 2022, in the state as well.

State Public Procurement Portal of Assam (SPPP Assam)
(https://sppp.assam.gov.in/)

State Public Procurement Portal of Assam (SPPP Assam) is an all-comprehensive platform to access tender related information issued by the state government departments, state public sector enterprises, and every other organisation

▼ Fig. 1.3: Hon'ble Chief Minister Dr. Himanta Biswa Sarma launching CM-TRANS at Guwahati

covered under the ambit of the Assam Public Procurement Act, 2017.

The portal is developed by NIC Assam in collaboration with NIC Chennai and NIC Delhi Headquarters and aggregates tender related data from Government eProcurement Assam (GePNIC), Government eMarketplace (GeM), and Pradhan Mantri Grameen Sadak Yojana Portal using APIs.

Jal Tarangini

Jal Tarangini is an Internet of Things (IoT)-based platform developed with the objective of automating the conventional river gauge into a modern river water level monitoring system. It offers a low cost, portable, energy-efficient, and reliable system that can continuously collect data from remote locations and relays it to a cloud-based infrastructure to monitor, process, and analyse.

Jal tarangani was first tested in Chirang District for monitoring the water level of the Aie river. Based on the experience gained during the testing a refined model has been developed with financial support from the Assam State Disaster Management Authority (ASDMA). The new iteration was deployed at the bank of river Brahmaputra in Dibrugarh district in May 2022 for PoC. ASDMA is now in the process of replicating this model across various river locations in the state, based on the successful outcomes.

eHospital

eHospital is a one-stop system which helps in connecting the patients, hospitals, other healthcare service providers and doctors on a single digital platform. It is a cloud-enabled and web-based Health Level Seven International (HL7) compliant application available through Software as a Service (SaaS) model for managing healthcare service delivery in government hospitals across the country.

In Assam, the system is implemented across one urban and 23 district hospitals. Further, it is aimed to implement the system across 14 more hospitals covering 12 districts by January 2023.

eTransport

Assam is one of the best performing states in terms of transport computerization. The State Centre helps in managing all eTransport services

such as registrations, driving licences, permits, enforcement, pollution control, accident management, etc. through its software application solutions such as Vahan & Sarathi, eChallan, Virtual Courts, eDar and PUCC across the State. It is the first state to implement e-Detailed Accident Report (eDAR) and Speed Limiting Device to augment road safety. The state also leads the country in implementation of Aadhaar-based contactless services. As of now, the State Transport Department offers 45 contactless services.

Integrated Land Revenue Management System (ILRMS)
(https://revenueassam.nic.in/ILRMS/)

Assam is the one of the first states to have taken a major stride towards eGovernance in the management of Land Records processes by implementing the ILRMS system in the state. It added a much needed layer of transparency, efficiency, and accountability to the system. The system delivers the entire range of citizen services to users through ARTPS Portal. This was only achieved with combined efforts from NIC ILRMS Team and Revenue and Disaster Management Department, Government of Assam. At present, these services are operational for 25 districts:

● **Dharitree:** facilitates online updation of Land Records and streamlines RoR data

● **NOC:** issues No Objection Certificate for transfer of immovable property

● **e-Panjeeyan / NGDRS:** reduces waiting time for deed registration by auto calculating the eStamping fees and scanning of documents and biometric inputs

ePrastuti
(https://eprastuti.assam.gov.in/)

ePrastuti is a web framework developed by the State Centre for the Government of Assam in order to establish a uniform identity across state government websites. Currently, there are 212 departmental and 29 district websites running under ePrastuti.

Assam State Portal (https://assam.gov.in) is also using the ePrastuti framework. The portal aims to provide a single window access to the information and services being provided by

the State Government to its citizens and other stakeholders. It aspires to be a comprehensive, accurate, and reliable source of information on Assam and its many facets.

eGRAS Assam
(https://assamegras.gov.in)

eGRAS (electronic Government Receipt Accounting System) is an online system that facilitates creation of eChallan and online payment by citizens anywhere, anytime. It also takes care of the accounting needs of the State Government for government receipts. The revenue received through the system is first pooled in the participating banks and then transferred by them to the Consolidated Fund of Assam maintained by RBI. It functions along with e-Scroll to RBI and Virtual Treasury (VT).

As of now, eGRAS Assam has been integrated with major state departmental portals for online payment and generation of eChallan. Further, state departments without portals have been directly boarded to the system. It was originally developed by the NIC Pune Centre and has been greatly enhanced with many additional features to meet the specific requirements of the state.

eGRAS Assam has also been replicated in Arunachal Pradesh, with full ongoing support from NIC Assam. Till December 2022, 48.56 lakhs eChallans have been issued through eGRAS, earning revenue of ₹35,640 crores for the State Government.

GePNIC
(https://assamtenders.gov.in)

Government e-Procurement System of NIC (GePNIC) is a centralised online solution to conduct all stages of the procurement process. The solution is running successfully across India for both Central and State Government organisations.

Fig. 1.4: Jaltarangini – a flood forecasting and early warning system developed by NIC Assam – being tested in the Brahmaputra River in Dibrugarh.

NIC Assam has played a significant role in the digital growth story of Assam. Since its inception, NIC Assam has worked hand in hand with the State Government to identify the unique needs and requirements of state residents in order to provide a more inclusive and accessible digital experience. Further, it aims to develop strategies for creating an efficient, effective, and robust eGovernance system for the state and achieving the common goal of creating a Digital Assam.

Dr. Suchitra Pyarelal
Dy. Director General & SIO

It has all security features in place including two-factor authentication with Digital Signature Certificate.

Assam was on-boarded on the system in 2015 and since then, a total of 42,550 tenders of value ₹1.86 lakh crore have been floated in the state.

ICT Application in Elections

NIC Assam has been at the forefront of managing all ICT-related activities of election management for the State Government since early 1990s. Besides its flagship solution eNirvachan, Assam became the second state in the country to implement the Force Deployment Software and Eletraces for randomised deployment of security forces and tracking of EVMs during Assam Legislative Assembly Elections 2021.

Employment Exchange Portal
(https://employment.assam.gov.in/)

The Employment Exchange Portal is an initiative by the State Government to facilitate job seekers in the state to register for various employment schemes notified by the state departments. The portal was launched by the Hon'ble Chief Minister of Assam in September 2022. The portal is developed by the State Centre and registers the job seekers by simply seeding their Aadhaar.

eCounselling

eCounselling process for a total of 128 Government and Private Industrial Training Institutes (ITIs) involving 1,56,905 seats has been achieved by the end of 2022. Further, the facility for the digital management of all ITIs of Assam will be completed in near future.

Assam State Awards Portals

Two prominent award portals were launched in 2022 for State Civilian Awards and Teachers Award respectively.

● State Civilian Awards
(https://assamcivilianawards.assam.gov.in/)

● State Teacher's Award
**(https://shikshak.assam.gov.in)**

Mobile Apps
Matsya Baibhav

Matsya Baibhav has been developed by NIC, Assam State Centre for Department of Fisheries, Assam to geo-tag the assets created under Ghare Ghare Pukhuri Ghare Ghare Maach (GGPGGM) scheme in the first Phase with the following objectives:

● To build a common platform for monitoring of the schemes

● To get the summary status of the GGPGGM scheme through the dashboard and graphical representation of consolidated data and detailed status through various reports

● To view the presence of ponds / tanks in the map with detailed parameters

● To build a system where dashboard and reports are accessible to public

GeoRurban

GeoRurban App for monitoring physical progress of the Rurban scheme by geo-tagging the assets.
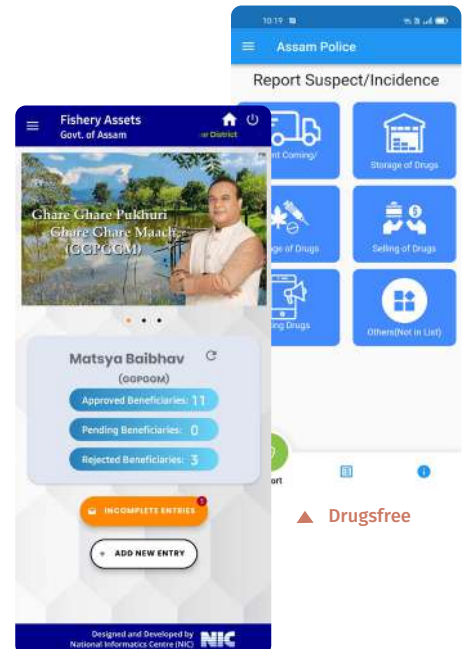
▲ Drugsfree

▲ Matsya Baibhav

Drugsfree Assam

Drugsfree Assam allows any citizen to report any suspicious activity / person like storing, selling, transporting, using or promoting drugs to the police.

COVID-19 Initiatives

● **Corona Virus Alert Assam (COVAAS)** is a one-stop mobile alert application that brings services and information alerts related to the pandemic onto a single platform for the convenience of the administration and citizens

● **Covid Suraksha** a web-based application for managing and monitoring home quarantine cases across the state

● **Online ePass** for inter-state and inter-district movement during lockdown

● **COVID-19 Advisory Portal** is a web equivalent of COVAAS and provides information on all COVID-related schemes, district-wise case details, and central / state government issued advisories

Infrastructure Support and Network Services

Regional Centre of Excellence in Application Security (RCoEAS)

RCoEAS was established in Guwahati to provide state-of-the-art security solutions and services for the ICT needs of North-eastern States. It provides following services:

● Application Security Audit Compliance

● Mobile App Security Testing

● Automated Scan

● Comprehensive Security Assessments

● Server Compliance

▼ Fig. 1.5: Assam State Portal developed using ePrastuti web framework
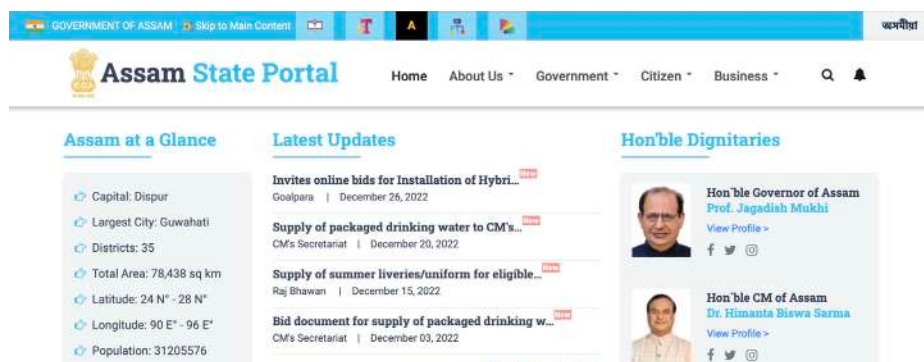
- Continuous Assessment with Penetration Testing
- Propagation of Security by Design and Secure SDLC (SSDLC)

NIC Assam State Cloud

NIC Assam State Cloud was launched in 2019 to accelerate delivery of e-services in the state while optimising ICT spending of the Government. It ensures optimum utilisation of the infrastructure and speeds up the development and deployment of eGov applications. It offers Platform as a Service, Infrastructure as a Service, Software as a Service, and Storage as a Services among other

▼ Table 1.1: Central / State eGov Projects Report

Project	Implementation Status
eCourts	2.4 lakh court case entries from January 2022 to November 2022
ePrison	31 jails covered & 1.86 lakh prisoners registered till November 22
eForensics	2 labs covered & 16.6 thousand cases registered till November 22
eProsecution	32 districts covered & 93,000 cases registered
RERA	544 projects registered
eGranthalaya	Implemented in 6 institutions
eCounselling	Implemented in 44 government and 84 private Institutes
ePravesh	Over 8.8 lakh visitors & 6,000 car passes issued in Assam Secretariat
Online Building Permission System (OBPS)	Implemented in 27 Urban Local Bodies
MatsyaBaibhav	Over 9,000 ponds / tanks covered & 8,982 geotagged
eGRAS	41 departments onboarded directly and 16 departments onboarded through integration with departmental portals
e-DAR	321 accidents registered 317 trainings conducted
eChallan	4,21,332 challans issued ₹2,54,87,55,603 fine collected

▲ Fig. 1.6: Hon'ble Prime Minister, Shri Narendra Modi virtually laying the foundation stone of the National Data Centre for the North Eastern Region

services. As of 2022, the State Centre offers Cloud Services to 51 departmental users and has created 68 virtual machines.

National Knowledge Network (NKN)

NIC Assam has been managing NKN since 2011. It connects 64 educational institutes, by 12 core links of 10 Gbps and 2.5 Gbps bandwidth. The Centre also manages the NKN network for two districts of West Bengal, including Cooch Behar and Alipurduar.

Core Infrastructure

NIC Assam is well equipped with state-of-the-art infrastructure to cater to numerous needs of the state. NICNET has emerged as the ICT backbone for the State Government. It has been managed by the State Centre since 2003 and connects the State Government with the rest of the world through its extensive network of 606 LANs comprising 48,622 nodes. In terms of statistics, NICNET connects 210 locations under Land Revenue Project, 93 Courts and Jail Complexes, 23 APHED Sub-Divisions, 18 State Divisional Office, 53 Central and State Government offices, 11 FCI Offices, 33 District Transport Offices, 33 District Police Headquarters, alongside 7 other locations.

National Data Centre - North East Region (NDC-NER)

NDC-NER is a dedicated data centre developed to host and maintain eGovernance initiatives from the North Eastern States. It aims to expedite the implementation of flagship Government projects. Further, it aims to accelerate the socio-economic growth of the region, by enabling 'ease of doing business' and providing enough opportunities to the people and businesses of the Northeast to interact progressively.

Hon'ble Prime Minister, Shri Narendra Modi virtually laid the foundation stone of NDC-NER Guwahati on 18th February 2021 in presence of the Hon'ble CM of Assam, Dr. HImanta Biswa Sarma. (See Fig. 1.6).

The data centre will be a G+5 Floor building having 200 racks expandable to 400 racks and is rated as Tier-III Green Data Centre with integrated substation, HVAC plant, Network Operations Centre and Security Operations Centre facility.

Training & Capacity Building

- various symposiums on Enterprise Architecture, AI & ML, and Data Analytics were organised, which were attended by over 500 senior state government officials
- mobile app development training organised at Assam Administrative Staff College
- training for departmental and district officials were organised for the implementation of ePrastuti and eOffice
- various training were organised for GePNIC, PDS, eRupantor, and ACS & Other Allied Services

Accolades

- CSI SIG eGovernance Award 2022 for Kritagyata
- CSI SIG eGovernance Award 2020 for Ease of Doing Business in Assam Portal
- CSI Nihilent eGovernance Award 2010-11 for Assam

Way Forward

With its committed teams at State / District Centres, the NIC Assam State Centre is committed to making a positive contribution to digital governance. It is working toward the launch of a number of state-wide projects, including Pehchaan, eCabinet, NeVA, NGDRS, Blockchain in Land Records, and FRUITS. In addition, it is working towards implementation of enterprise architecture across various systems for effective public service innovation and better citizen outcomes.

Chandigarh UT
Digital Infrastructure as a Utility to Every Citizen

Edited by **MUKESH KUMAR RALLI**

Located in the foothills of the Shiwalik Hills, Chandigarh is best-known for its modern architecture and urban planning. The better living conditions and grass root level internet connectivity of the Union Territory (UT) has attracted talents from neighbouring states like Punjab, Haryana, Himachal Pradesh and Uttarakhand and made the City Beautiful as one of the emerging IT destination in the country.

Overview

NIC Chandigarh UT Centre has a very enriching and fulfilling journey. It has reached new heights with each new challenge. Since its inception, it has played a crucial role in fostering ICT culture in the UT by undertaking several significant eGovernance projects.

The UT Centre first began its operation in the region from the Office of Chandigarh Deputy Commissioner in 1990. Later, in response to growing demands for its digital services, it established its stand-alone office in the

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NIC Chandigarh UT Centre has been instrumental in narrowing the ever-widening gap between Government and Citizens by providing the efficient and assessable citizen-centric digital solutions. These solutions are not only making lives of citizens easier by taking services to their doorsteps, but have also made the administration swift, responsive, transparent, hassle-free and easily accessible.

Chandigarh Administration Secretariat Building in 1993. As of now, almost two decades later, the UT Centre has massively scaled its offerings with a Software Development Centre, Network and Data Centre, SWAN State Headquarters, and NKN Point of Presence.

With its newly launched Mini Cloud Centre in 2022, it has practically extended its network and infrastructure offerings to each and every user department which can make full use of them. It also offers these services to neighbouring states including Haryana, and Punjab.

Furthermore, in collaboration with Chandigarh UT Administration, the UT Centre is also committed to providing G2C and G2E digital services, directly at the fingertips of the UT residents. It has actively participated in the entire process of designing, developing, and deploying these services for the benefit of the public.

Some of the key projects undertaken by the UT Centre include GePNIC, Jeevan Pramaan, Aadhaar Enabled Biometric Attendance System (AEBAS), Medico Legal Examination and Post Mortem Reporting (MedLEaPR), etc.

ICT Initiatives in the UT

Direct Benefit Transfer under National Food Security Act

The UT Centre implemented ePDS system for Direct Bank Transfer in lieu of food grains subsidy in Chandigarh. The system has replaced the Fair Price Shops (FPSs) in the region. It is a web-based multilingual ration card management system that provides faceless services for applying and updating Ration Cards, made available to beneficiaries covered in National Food Security Act. The system directly transfers food subsidy into the Aadhar linked bank account of head of family as per entitlement, on a monthly basis. Food subsidy of ₹ 417,51,524 has been transferred to 2,95,884 members of 68009 Priority Households (PHH) families and 763 Antodya Anna Yojana (AAY) families for the month of December 2022.

One Nation One Ration Card Scheme

One Nation One Ration Card (ONORC) scheme was started in light of the COVID-19 pandemic to help economically weaker migrant workers and their families. As of now, a total of 122 migrant families of 425 members have been enrolled under the scheme in Chandigarh.

Vahan & Sarathi

Vahan and Sarathi are national vehicle registration and driver's licence systems. They intend to automate all vehicle and driver information with road transport authorities in order to provide various digital services to citizens. Since 2015, both Vahan and Sarathi have been active in the UT. In May 2022, the faceless version of these services was also launched for citizens.

Through the twin system, 7,64,792 vehicle registration certificates and 7,23,769 driver licences have been issued to date. In addition, Dealer Point Registration, Fancy Registration Number Auction Portal, Pollution Under Control Certificate, and e-Challan have been enabled on the system.

Vehicle Location Tracking & Emergency Alert System (VLT&EAS)

In order to improve safety of women and children in public transport systems, the Chandigarh UT Centre implemented VLT&EAS in all public and UT government transport vehicles. The System is integrated with Emergency Response Support System (ERSS) and ensures real-time identification of vehicles and their location for immediate response in case of emergency.

In order to facilitate better services, monitoring centres are also set up for tracking as well as health checks of the VLT device and emergency buttons. The system has been made mandatory for public service vehicles by the Government of India.

Since its launch on 30th May 2022, around 35 percent of the public service vehicles registered in Chandigarh have been onboarded on the system and have been equipped with the VLT device and panic button by the end of December 2022.

iRAD

Integrated Road Accident Database (iRAD) is a major initiative by the Ministry of Road Transport and Highways (MoRTH), Government of India aimed at reducing the number of road accidents in the nation by improving road designs and identifying accidental black spots. The system was launched on 22th April 2022 in the UT and has lowered the road accidents in the region.

As of now, a total of 2,021 accidents in the region have been recorded through the system. For optimal use and success of the system, the UT Centre is imparting training to all the stakeholders on the iRAD application on a regular basis.

eTula

The District Centre implemented the eTula (e-Transformation of Legal metrology Administration) system for the Department of Consumer Affairs and Legal Metrology, Chandigarh Administration, in order to safeguard the interest of the consumers by ensuring that goods sold and bought are correct in quantity and volume as claimed. The system aids in verification, inspection, and licences issuance to commercial establishments, manufacturers and repairers of weights and measures. The stakeholders can online register their establishments and apply for issuance / renewal / amendment of licences by paying a nominal fee online. After receiving an application, the department concerned verifies the application and issues the certificates online.

eHospital

e-Hospital application is a cloud-based Hospital Management Information System for digitization of internal workflows and processes of hospitals, including such as OPD / IPD, Emergency, Blood Bank, Billing, Lab, and Stores management. It helps in connecting patients, hospitals and doctors on a single digital platform and provides delivery of citizen-centric services like online appointment booking, access to lab reports online and blood availability status. The system has successfully been implemented by the UT Centre across several major government hospitals across the Union Territory, including Government Medical College & Hospital, Sector 32; Government Multi-Specialty Hospital, Sector 16; alongside their subordinate hospitals and dispensaries.

In 2022, the new NextGen eHospital was implemented in Civil Hospital, Manimajra alongside 10 other Health & Wellness Centres across the region. The new system is integrated with Ayushman Bharat Health Account (ABHA) Health ID for providing better health services. As of now, around 85,000 appointments have been made by patients a year in Chandigarh.

eAuction

eAuction is a web-based auctioning solution implemented for the UT Administration that enables the auctioneers to download the auction schedule and participate in auction online. The bidders and companies can register online on the portal for bidding. Printing and Stationery department, Engineering Department, Estate Office, Housing Board, Excise & Taxation are few

▼ **Fig. 2.1: Chandigarh Musafir app**

NIC Chandigarh UT Unit has played a key role as an integrator and IT solution provider, playing a proactive role in various IT enabled initiatives and development of applications for various services of different departments. Many innovative steps have been taken by NIC to promote eGovernance activities and have carved a path for IT implementation and delivery of services (G2C). Besides being the backbone of network, applications like Property management, Land records, Transport, Treasury, Excise and Taxation, Health etc. have been implemented very effectively.

I would congratulate and appreciate NIC Chandigarh UT team for their qualitative support, diligence and proactive attitude towards ICT and wish them all the best for future assignments.

Nitin Kumar Yadav, IAS
Secretary (IT), Chandigarh UT

UT departments, which have boarded the system.

Swagatam

Swagatam is a web-based appointment management software that smoothens the process of visiting the government offices. Anyone can take an appointment online in advance by simply registering themselves on the portal and making the request to concerned officers. Once approved, the person can easily visit the office by quoting their basic details.

Sarai / Guest House Booking App

The Chandigarh UT Administration manages a number of state properties, including the UT Guest House and Panchayat Bhawan, which are available to visitors during their stay in the Union Territory. In order to simplify the booking process, the UT Centre has developed an online Guest House Booking system that allows users to reserve rooms with a single click.

The system also facilitates booking in the Sarai building on the PGIMER Campus for the attendants of out-of-town patients receiving treatment at the medical campus.

Right to Education Admission Portal
(http://admser.chd.nic.in/rteOnline/Home)

The Right to Education Admission Portal is being developed for online admissions of children from economically weaker sections and disadvantaged groups in entry-level classes in
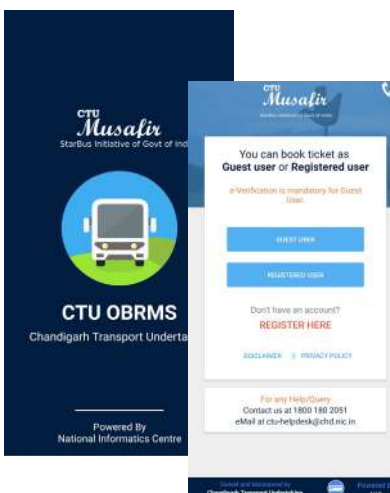
Fig. 2.2: Hon'ble Administrator of Chandigarh, Shri Banwarilal Purohit launching services made using Service Plus Framework

government unaided schools of UT Chandigarh. The software randomises the applications and facilitates automatic draw and allotment of seats in the school of choice.

Chandigarh Transport Undertaking

The UT Centre has designed two softwares for Chandigarh Transport Undertaking (CTU). First, the Driver / Conductor Roster Management System, which is used by the CTU for duty allocation of bus driver and conductor on stipulated routes as per bus timings. Second, the Online Bus Reservation Management System (OBRMS) software, which can be used by citizens to book tickets online on CTU run buses. It can also be used for booking CTU lodges.

In addition, there are designated mobile apps, CTU Conductor and CTU Musafir, to facilitate these services on mobile phones.

Manav Sampada

Manav Sampada is an electronic Human Resource Management System (eHRMS) developed for the effective monitoring of employee service books with complete details.

The UT Centre has implemented the system across 75 departments of Chandigarh Administration.

Over 25,000 employees working in these departments use this system for filing Annual Performance and Appraisal Report (APAR) and Property Returns.

eGovernance Applications developed on Service Plus Framework

In an effort to provide better services to the citizens of the Union Territory, the UT Centre digitised 58 services for various UT departments. These services were built on LowCode–NoCode (LCNC) architecture using ServicePlus meta-data based e-Service delivery framework.

These digital schemes were launched by the Hon'ble Governor of Punjab and Administrator of Chandigarh, Shri Banwarilal Purohit, in a state level event on 2nd May 2022. (Ref Fig. 2.2)

Out of these 72 services, 8 services were launched for Chandigarh Housing Board covering its various residential property schemes; 5 services were launched for Chandigarh Labour Welfare Board (CLWB) and Chandigarh Building & Other Construction Workers Welfare Board (CBOCW Board) covering their 23 schemes; 23 Services were launched for Excise & Taxation Department covering 86 regulatory compliance certificates, 17 services were launched for Chandigarh Transport Department and 5 services were made online for Estate office. (Ref Fig. 2.3)

In addition, 26 welfare social schemes were also digitised and onboarded on ServicePlus and Umang app. Out of 26 schemes digitised, 11 schemes were from Social Welfare, Women and Child Development, 8 schemes were from Directorate of School Education, 2 schemes were from Zila Sainik Board, and one scheme each from CCET (Degree Wing), Directorate of Technical Education, Chandigarh State Aids Control Society,

Fig. 2.3: Department-wise summary of citizen-centric services

05 Agriculture Department	03 Chandigarh Administration	08 Chandigarh Housing Board
05 Deputy Commissioner Office	05 Labour Department	23 Excise and Taxation Department
01 Municipal Corporation Chandigarh	17 Transport Department	05 Estate Office

01	**11**	**08**	**01**
CCET (Degree Wing)	Social Welfare, Women and Child Development	Directorate of School Education	Directorate of Technical Education
01	**02**	**01**	**01**
Chandigarh State AIDS Control Society	Zila Sainik Board	Punjab Engineering College	Health Department (GMSH)

▲ Fig. 2.4: Department-wise summary for DBT Schemes digitized

Punjab Engineering College, and GMSH. (Ref Fig. 2.4) With this launch, the UT has become first among states and union territories to digitise all direct bank transfer (DBT) schemes.

eDistrict Chandigarh
(http://chdservices.gov.in/)

eDistrict Chandigarh is a web-based workflow system that provides end-to-end computerisation of citizen-centric services. Its objective is to provide these services in a transparent, efficient, and hassle-free manner. It is integrated with Aadhaar for online registration and issuance of digitally signed certificates. It is also integrated with eTaal and Digilocker in order to offer better services.

As of now, it provides 25 citizen-centric services, including residence certificates, income certificates, marriage certificates, birth / death certificates, legal heir certificates, etc.

Chandigarh Housing Board Online Payment System
(https://payonline.chb.gov.in/)

Chandigarh Housing Board (CHB) Online Payment System deals with all kinds of tax payments related to various residential and commercial properties in Chandigarh. The system maintains a Personal Ledger Account (PLA) and has made the PLA statement for 60,000 flats online. It further facilitates the department for conducting draw under various schemes online.

Chandigarh GIS App

The entire area of Chandigarh UT has been captured by aerial and mobile LiDAR images. The project covers the entire UT region of Chandigarh, around 140 square km, which comprises 63 Sectors in gridded form and 23 villages. The map mainly comprises residential area, commercial area, industrial area, institutional area, agricultural area, forest area, scheduled green belts, parks, gardens, road network, water bodies and all villages (inside and outside the laldora). This map has 420 layers and is available with Chandigarh Administration for making better administrative policies for the betterment of Union Territory.

Estate Office Property Management System
(https://estateoffice.chd.gov.in)

Estate Office Property Management System has been developed to create a functional ICT-enabled solution for delivering digital services by the department to public. It ensures service delivery in a time-bound manner as per a defined citizen charter. It is also integrated with other offices for information sharing. As of now, a citizen can avail 21 different services onto the platform.

eOffice

eOffice is a cloud-based system designed to support Governance by introducing more efficient and transparent inter- and intra-Government processes. It aims to achieve simplification, responsiveness, efficiency, and openness in workings of all government offices. Beginning in November 2017 with only two departments, NIC UT Chandigarh has implemented eOffice in each and every UT department and their sub-departments. The Centre has also implemented the system in Municipal Corporation of Chandigarh.

Composite Financial Accounting System
(https://egras.chd.nic.in/)

Composite Financial Accounting System (CFAS) is a common integrated platform developed and implemented by the UT Centre for financial services of UT Administration, comprising Payroll Processing, Budget Accounting System, DDO Accounting System, Treasury Information System, Government Receipts Management System and Public Financial Management System (PFMS).

▼ Fig. 2.5: NIC Chandigarh team at the Mega Launch of eServices

Engineering Works and Budget Monitoring System
(http://admser.chd.nic.in/ewbms/)

Engineering Works & Budget Monitoring System (EW&BMS) is a work-flow based application being implemented for the Engineering Department (PWD) of Chandigarh Administration to monitor progress of various ongoing works in terms of both physical and financial aspects.

There are four stakeholders involved in this application, viz. Engineering Department, Treasury, Client Departments and Contractors. This application is integrated with PFMS for the management of expenditures and other finances.

Online Jamabandi
(http://164.100.147.11/onlinenakal/)

Online Jamabandi is a land record management system developed for the Revenue Department of Chandigarh UT. It aims to help people to access official land record of Chandigarh such as Registration, Mutation and Jamabandi using Owner name, khewat number and khasra numbers.

This portal also serves as an authoritative source of information on rules and regulations regarding property registration in UT region.

eAwas
(https://eawas.chd.gov.in/)

The Chandigarh Administration House Allotment Committee services are fully computerised by eAwas. These services include online application receipt, verification, bidding, and allocation. The system can provide information on house allotment and vacation, generate and update seniority-based lists, issue rent payment details, allow bidding for vacant houses, handle mutual exchange applications, and manage employee grievances and complaints.

The system is supplemented by a mobile app that helps field inspectors report on the status of houses. Currently, a chatbot has been integrated to assist applicants. NIC has replicated the system for the Municipal Corporation and the Police Department in Chandigarh and Punjab State.

eVigilance
(https://evigilance.chd.gov.in/)

eVigilance portal has been developed for the convenience of more than 33,000 Chandigarh UT employees. It has cut short the time taken for vigilance clearance from several weeks or months to a maximum of 2-3 days. The user department only has to apply on the portal to get the Vigilance Clearance Certificate.

As of December 2022, the portal has received a total of 21,856 applications and out of which, 20,876 have been cleared for the same.

eGazette
(https://egazette.chd.gov.in/)

eGazette portal publishes official Gazette and Notifications issued by the Chandigarh UT Administration. These Gazettes and Notifications are of great use to Industry, Citizens, and

▲ Fig. 2.6: UT Administration and NIC teams at the inauguration of New Chandigarh UT Secretariat

Governments. The portal is managed by the Department of Printing and Stationery, Chandigarh UT. Since October 2019, the portal has published a total of 1,294 notifications and 514 gazettes.

Reservation Roster, Recruitment Rules and Vacancy Management System

This application is developed for Department of Personnel and Social Welfare, Chandigarh UT in order to fill the information gap related to updation of Recruitment Rules and vacancies in UT machinery. It allows the Head of Department (HoD) to monitor on his / her dashboard category-wise vacant positions in their departments and send automated quarterly alerts to the Branch In-charges to update the information, so that the posts do not lapse after two years of remaining vacant. Furthermore, this increases the transparency in cadre management and improves employee satisfaction.

Excise & Taxation

The UT Centre has developed three application modules for the Department of Excise & Taxation, namely, ePermit, Liquor Licensing System and Label Registration to facilitate better service delivery.

Court Computerization
(http://chddistrictcourts.gov.in)
(http://admser.chd.nic.in/)

A centralised solution is in place covering all the 19 District courts. The data is being used to generate the cause list case details, judgments etc. Besides, computerisation has been carried out at State Consumers Disputes Redressal Commission (SCDRC) and Central Administrative Tribunal.

Initiatives during COVID

COVID-19 pandemic is a once in a lifetime event. It disrupted life in a unprecedented way. It required efforts from both Government and Citizens to tackle the menace, and UT Centre was no different. The UT Centre has played a pivotal role in providing infrastructure services in terms of Internet / Email / Bulk Messaging / Web / Mobile based applications and Video Conferencing facilities to the UT Administration on a 24 X 7 basis. Besides infrastructure services, the UT Centre was also involved in the following activities:

- Issuing movement passes for people involved in essential services
- Registration and issuance of passes for migrants
- SMS alerts for Rapid Antigen and RTPCR Reporting
- Issuance of exemption certificate for tax free import of COVID-19 relief materials
- ePermits for Oxygen Cylinder for Home
- Mobile app for distribution of free food grains under PMGKAY.

Network and Infrastructure Services

NKN

Under NKN Project, NIC Chandigarh provides high-speed network connectivity to top educational and research institutions in UT and neighbouring states. IIT Roop Nagar, CSIR-IMTECH, Chandigarh, Panjab University, Chandigarh, and NDRI, Karnal are just a few names in a very long list. The network is designed using a proactive strategy that anticipates future needs and opportunities, both in terms of usage and perceived value.

Regional Network Centre

In 2003, the UT Centre commissioned a leased line network to connect all offices in District Collectorate (Punjab, Haryana & Chandigarh), Punjab and Haryana High Court, Haryana and Punjab Secretariat, and all other state government departments and offices in the territory. Later, this was extended to other neighbouring regions of Himachal Pradesh, Jammu & Kashmir, Punjab and Haryana. In addition, the UT Centre also offered a Managed Leased Line Network connectivity to various central government departments and offices which include Census, Directorate General of Foreign Trade, Environment and Forest, Unique Identification Authority of India, Registrar of Companies, and Central Government Health Scheme, etc. The base bandwidth for NICNET / Internet access for the network has been strengthened to 10 Gbps links through different ISPs.

Chandigarh SWAN

The UT Centre successfully implemented Chandigarh State Wide Area Network (CSWAN), funded by the Government of India. Under

this project, all the major offices of Chandigarh UT Administration along with eSampark, eJanSampark, and GramSampark Centres were connected under CSWAN. There are also 7 Points of Presence (PoPs) namely Chandigarh Municipal Corporation, Deputy Commissioner Office, Sub Divisional Magistrate (South) Office, Sub Divisional Magistrate (East) Office, Government Medical College and Hospital Sector-32, Government Multi-Specialty Hospital Sector-16, and Registration & Licensing Authority, which were connected to the CSWAN. NIC also ensures connectivity on 24 x 7 basis.

Chandigarh State Data Centre

Chandigarh Administration decided to use the existing NIC Chandigarh Network & Data Centre established in 2004, as State Data Centre (SDC) to cater ICT services to Chandigarh Administration. It is equipped with state-of-the-art infrastructure to facilitate eGovernance initiatives as well as to cater diverse computing and networking requirements of Chandigarh Administration. A cutting edge high capacity (30 TB) storage area network (SAN) is also set up in SDC to provide a shared pool of storage to Servers. It is operational on 24 x 7 basis and is manned by technical persons in different shifts to respond to any kind of technical support to concerned users. All the major departments under Chandigarh Administration are connected to SDC through high speed channels to provide efficient services.

Mini Cloud Centre

Due to advancement in communication technology and increasing penetration of mobile networks, there has been drastic change in the way Government services are delivered to the citizen.

The computerisation of citizen services and G2G services have increased dependence on reliable, robust and high speed networks and state-of-the-art data centres. To meet the increasing needs and due to insufficient space at the existing Chandigarh State Data Centre, a new 6100 sq. ft. Mini Cloud setup has become operational from February 2022. Further enhancement of the ICT infrastructure including Networking, Computer, Storage and Backup infrastructure at this Centre is also being done to meet the increasing needs of the UT administration.
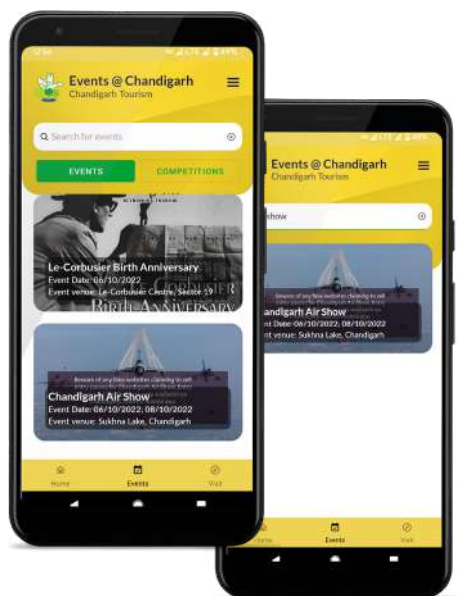
▲ Fig. 2.7: Chandigarh Tourism app

Video Conferencing

The UT Centre is providing VC facility to all Chandigarh Administration departments for which, a VC Studio has been set up at the Chandigarh UT Secretariat. Apart from this, 15 more VC studios have been set up at various UT departments to handle their VC sessions including one at Punjab Raj Bhawan Chandigarh for VVIPs sessions. The UT Centre also provides technical support to Chandigarh Administration for Network and VC services at remote locations during VVIPs events. On average 100 VC sessions are conducted per month by the UT Centre. This includes both legacy and web-based VC solutions.

Internet & Email

The UT Centre has promoted the use of government eMail services across all UT administration departments and offices. As of now, the Centre manages over 7,200 email accounts, which have been provided to officers and staff of Chandigarh Administration and Central Government departments in Chandigarh.

Web Development and Management

NIC Chandigarh UT Centre provides web hosting

and management services to all Chandigarh UT and Central Government departments. As of now, there are 67 websites hosted and managed by UT Centre team under Chandigarh State Mini Cloud and National Cloud Meghraj. Most of these websites are based on NIC S3WAAS framework, which stands for Secured, Scalable, and Sugamya Website as a Service. These websites have a uniform and responsive design, which makes them easily accessible through a variety of devices viz. mobile, tablets, and personal computers. These websites are GIGW compliant and follow accessibility standards.

Important Events Organised

● **Sukhna Lake Air Show**

Indian Air Force celebrated its 90th anniversary at Sukhna Lake, Chandigarh on 8th October 2022. The event was attended by the Hon'ble President Smt. Draupadi Murmu alongside Hon'ble Union Minister of Defense, Shri Rajnath Singh. For the smooth functioning of the event, the UT Centre provided technical support by establishing the Green Houses at Sukhna lake, Punjab Engineering College, and Punjab Raj Bhavan in coordination with various Departments of Chandigarh UT. A mobile app for Chandigarh Tourism Department was also developed to provide passes to the general public and facilitate crowd management. (Refer Fig. 2.7)

● **New UT Secretariat Building Launch**

Successfully provided VC and Network during the launch of the New Secretariat Building by the Hon'ble President of India, Smt. Draupadi Murmu.

Accolades

● National Silver Icon Award for Comprehensive Web Presence
● National Golden Icon Award for e-Sampark
● National Silver Icon Award for Best Government Website
● CSI-Nihilent Best eGoverned State/UT Award
● CSI-Nihilent Award of Appreciation for General Elections 2014
● Best Performance Award for Government eProcurement System (GePNIC)

Way Forward

NIC Chandigarh UT Centre stands committed to provide a valuable impact on digital governance. In collaboration with the UT Administration, the Centre endeavours to take forward several ICT enabled G2G, G2E and most importantly G2C services into general public. As of now, it is working toward rollout of Property Management System, Tax Management System and One Map GIS Portal.

▼ Fig. 2.8: Chandigarh Network and Mini Cloud Centre

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GOA State
Delivering on the Digital India Mission

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Nestled between the Arabian Sea and the Western Ghats, the picturesque state of Goa is rapidly transitioning itself into a digital giant. It has adopted all nine pillars of the Digital India Programme with a particular focus given on Broadband Highways, eGovernance, and eKranti. It is one of the first states to provide a Statewide area network (SWAN) through the Goa Broadband Network (GBBN) and connected all State Government Departments with the State Intranet. On eGovernance and eKranti, it has taken significant steps in ushering the State to era of Digital Governance

NIC Goa State Centre first began as the North Goa District Centre in 1984. Later in 1994, this District Centre was merged with an analogous state-run Goa Computer Centre to form its current form. Since then, the State Centre has become indispensable to the State Government. Its state-of-the-art Data Centre is instrumental in hosting

With the arrival of COVID-19, contact-less services became the need of the hour. NIC Goa State Centre raised to the occasion by digitising many citizen-centric services, especially online payment through e-Challan Payment Gateway. Its offerings like e-Pagaar20 helped in transferring NPS data to NSDL in record time thus resulting in huge savings for State. Portals like NGDRS, Online Marriage Registration, Births & Deaths, GEMS reduced citizen footfalls at the department offices. Systems like iRAD laid a step towards quick and responsive government agencies. Portals like Dharani and Bhunaksha made land details transparent to the public.

many of the State Governments turn-key projects and websites.

ICT Initiatives in the State

NIC Goa has implemented a number of projects in the state. Some of the latest projects are highlighted here

Accounts Online Project

This project has been conceptualised, developed, and implemented by NIC Goa for the Directorate of Accounts (DoA) Goa, which is analogous to the Pay and Accounts Office for Goa. The State Centre has been working on this eGovernance project since 1993. In the early 90's, UNIX-based systems were implemented, but as technology advanced, the Centre has endeavoured to keep the eGovernance program in DoA up to date. Some of the major systems in DoA in the recent past are highlighted below:

e-Challan Payment Gateway (PG)
(https://echallanpg.goa.gov.in)

e-Challan Payment Gateway is an online payment portal for services offered by Goa State Government Departments. It sits in between the department websites / citizens and the Partner Banking Gateways like a bridge. Thus, saving the user department from the hassle of integrating the portals with banks. Moreover, by doing so, it makes the accounting easier. It has received numerous awards, including the CSI-NIHILENT 2018 Award in the Project category.

Advantages of the Initiatives

- 75% of receipts are received in online mode
- 40+ departments are offering online payment services
- 400+ services are available

▲ Fig 3.1: ePagaar Homepage

e-Pagaar20
(http://10.190.22.11/epagaar20)

ePagaar is a Government payroll system with a difference. It captures the employee deductions like GPF / NPS / Employee Advances like HBA, MCA, etc. at source and transmits them to DoA for further processing of salary bills. The auto posting of deductions happens in the respective sections of DoA. It has been live since January 2020. Owing to the success of the project, it was mentioned in the State Assembly by Hon'ble Chief Minister of Goa on 29th July 2021.

Advantages of the Initiatives

● All salary data is captured at source

● GPF/NPS/Advances data is auto posted

● NPS data can be uploaded to NSDL by the 5th of the subsequent month resulting in huge saving for the Government

● All 520 DDOs and 40,000 employees are onboarded

e-Kuber integration with RBI

DoA has long been using the SBI Gateway for disbursing payments, however, one needs to pay a hefty fee per transaction. The e-Kuber system of RBI provides a fast and free system to disburse payments. The system was developed by the State Centre for State Treasury to generate payment files, automatically upload them, and process all notifications provided by RBI. This system has been live since December 2022.

Advantages of the Initiatives

● Waive off hefty charges for using SBI e-Payments system as RBI does not charge anything, thus saves government money

● Beneficiary accounts get credited faster

● Receives notifications by the end of the day from RBI while it used to take several days with SBI

PFMS Integration with National Portal

Through this system the DoA is able to update expenditures made on Central schemes by the State Government department so that it can be reflected on the National PFMS portal. This aids in better monitoring of funds to beneficiaries by the Government of India.

My heartiest congratulations to NIC Goa on being an invaluable partner of the Government of Goa in the various eGovernance initiatives and leading solution provider of ICT services in the State of Goa. During the COVID pandemic period, NIC has facilitated maximum number of Video Conferencing for all the Government Officials meeting and it was supported by redundant NKN link which has ensured reliable connectivity 24x7. Recently commissioned NIC Mini Cloud has helped us to deploy a maximum number of websites in a secure manner.
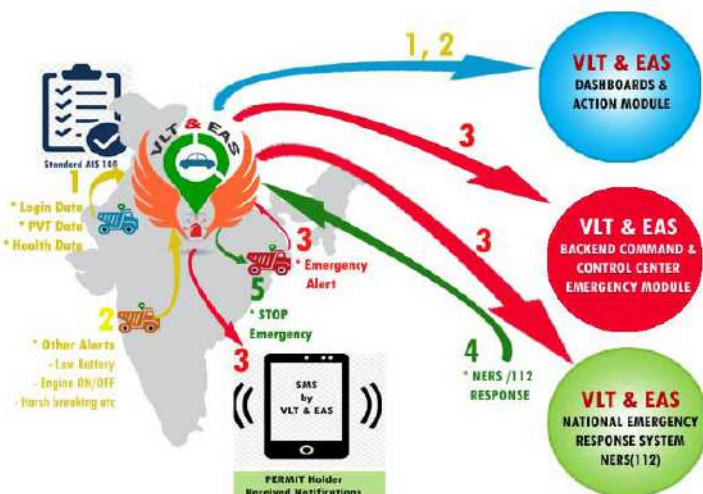
The Dharnai and Bhunaksha have put all land parcels on the Internet, available at the click of a button to the citizen. Similarly, NGDRS, Excise Management System, Marriage Registration System have made a good impact among citizens. Using the ePagaar2.O system, the salary bills of around 40,000 employees are submitted digitally. The introduction of e-Kuber system has provided real time details / transfer of revenue collections, saving time and costs to the Government of Goa. For the fifth consecutive year, paperless budget was presented. All these measures are helping Goa achieve the dream of Digital India.

I appreciate the commitment and dedication shown by NIC Officials in implementing ICT projects in the State of Goa. I also look forward to NIC continuing their good work for the overall development of Goa.

Dr. Candavelou, IAS
Principle Secretary (Finance)
Government of Goa

▼ Fig. 3.2: Process Flow of VLT & EA System

Goa State Excise Management System
(https://goaexcise.goa.in)

Goa State Excise Management System (GEMS) is a G2B initiative by the Department of Excise, aimed at achieving good governance and paperless office using ICT tools.

It is a workflow based application which provides an end-to-end solution to the business community, facilitating issuance of licences and permits for import / export of liquor in the State, anytime and anywhere, with just one click.

It also monitors revenue collection for the State. Apart from this, the system manages complete workflow on the basis of payment of

Fig. 3.3: GSUDA Application for Property and Solid Waste Management Homepage

excise duty right from raw materials, blending, bottling, warehouse and dispatch.

An Inbuilt facility to generate eChallan based on excise duty with online payment is provided. It can send SMS / emails alerts to the client about the status of application at each stage. Thus, significantly improved the relationship between the Business Community and the Department of Excise.

Advantages of the Initiatives

● Minimise physical interaction

● Reduced the application processing time from 10 days to 30 minutes

● Monitor online revenue collection

● Fee calculators for calculating excise duty and auto-generation of eChallan

● Integration with eChallan PG for easy transactions

Property Registration
(https://ngdrsgoa.gov.in/)

National Generic Document Registration System (NGDRS) is a workflow based system for Registration of Properties with online application and online payment services.

The system caters to the entire registration process in a faceless, paperless manner with options for property valuation, fee calculation and online payment of Registration Fees, etc.

Citizen need to visit only once at the time of final registration stage to Sub-Registrar Office for capturing biometrics and photo which is mandatory from identity and security point of view.

Advantages of the Initiatives

● Citizens empowerment through Digital India Program facilitates easy and transparent registration process on the first come and first serve basis

● 2% commission is charged by stamp vendors. Now because of digital payments this money is saved (annually almost 6 Crores are saved)

● Registration of Deeds is available on DigiLocker

● Data Analytics for decision and policy making is available

● One Nation One Registration Interoperability is made possible

VLT & EA System

To ensure safety of women and children while travelling in public transport, the Ministry of Road Transport & Highways, Government of India through Central Motor Vehicle Rules (CMVR) in 2016 made it mandatory to install Vehicle Location Tracking (VLT) Device and Emergency Alert (EA) Buttons in all Public Transport (Carriage) Vehicles (Four wheeled or higher, passenger carrying vehicles), with effect from April 2018. Accordingly, VLT & EA System has been implemented in Goa by the NIC Goa State Centre in collaboration with the NIC Uttarakhand State Centre. As of now a total of 11080 devices have been installed and activated on taxis. Similarly, a total of 66 devices have been installed and activated on state-run buses.

https://gavlts.goa.gov.in/IS16833/ (An IS 16833 Complaint Solution for Taxis with Fare meter integration)

https://gavlts.goa.gov.in/AIS140/ (An IS 140 Complaint Solution for Buses)

Integrated Road Accidents Database
(https://irad.parivahan.gov.in)

Road accidents in India have increasingly become a matter of concern claiming lives and causing injuries to many. Hence with a view to accurately identifying accident spots and taking corrective steps, the Ministry of Road Transport & Highways, Government of India has decided to develop a database of road accident spots under the project Integrated Road Accident Database (iRAD).

iRAD generates various types of insights by analysing the collected road accident data across the country through implementation of data analytics technique. It represents the analysis output through Monitoring & Reporting Dashboard and Analytics Dashboard for easy

understanding and decision making by the Authorities Concerned for formulation of new policies and strategies. It aims to enhance the road safety i.e. 'Safe Road for All' in India as the nodal agency to roll out the service, the UT Centre has been engaged in knowledge transfer through training and workshops to various stakeholder departments, including Police, Transport, Health and Highways/PWD Departments.

Advantages of the Initiatives

● Reduces response time of Police and Health departments in case of road accidents

● Improves road safety by identifying and rectifying black spots

Births and Deaths Registration
(https://rbd.goa.gov.in/)

This application is developed for the Directorate of Planning, Statistics & Evaluation (DPSE), which is the Chief Registrar for Birth and Deaths in Goa. The Birth and Death registration application is used by the department and its all stakeholder organisations, including Panchayats, Municipalities and Goa Medical College to facilitate Birth and Death registration. As of now, 8 lakh Birth and 7 lakh Death records have been made online through this system.

Municipal Administration Software
(https://goaulbservice.gov.in)

Municipal Administration Software (MAS) has been designed and implemented for all the Municipal Councils / Corporations in Goa with a view to ensure timely delivery of various end-to-end online services to the citizens through web-interface. MAS has various software modules such as Registration of Births & Deaths, House Tax Collection, Rent Collection, Issuance of Trade Licences and Signboards, Accrual Based Double Entry Accounting System and Counter Services for the citizens for online tax payments. The software has also been integrated with UMANG platform wherein essential municipal services have been provided to the citizens. It has drastically reduced the footfalls at Municipal Offices. Earlier citizens had to wait in long queues to pay their taxes, but now the same can be done online, from the comfort of their homes.

GIS Application for Property and Solid Waste Management
(https://geo.nic.in/gsuda)

This project developed by NIC Delhi, GIS Division and revolves around geo-tagging of Solid Waste and Property assets within the jurisdiction of the Urban Local Body (ULB). It aims to provide better decision making capabilities for ULBs. Thus, better management of Solid Waste collection. It has three components

Android App wherein authorised users are able to login through their registered mobile number and can carry out GIS editing along with geo-tagged images for various point layer assets by user Location / GPS.

Web GIS portal wherein citizens are able to

view the maps using standard GIS tools and ULBs can validate Solid Waste and Property Point Assets, which can be added, edited or deleted on the map using the mobile app.

Real Time Mechanical Sweeping Vehicle Tracking System through which the vehicles carrying solid waste can be tracked. This system is bundled with the Web GIS portal.

Bhunaksha
(https://goaulbservice.gov.in)

Originally a product of NIC-HQ for Cadastral Maps management, Bhunaksha has been heavily customised by the State Centre by adding several new features. It has several detailed data layers.

Like Dharani, it is a workflow based solution. Recently Bhunaksha has been enabled for Unique Land Parcel Identification Number (ULPIN) and other advanced tools for single and multiple plot management.

Both Dharani and Bhunaksha are integrated with each other and each of them share RoR and Maps data to important projects like PM-GatiShakti, Mathrubhumi, OneMap Goa and many state departments.

Through a public portal, citizens can view their RoRs and Cadastral Maps of their land parcels. It also serves as one stop destination for a host of important reports and statistics.

Advantages of the Initiatives
● Eliminates scope for middleman and scams by providing free viewing of RoRs and Maps
● Helps to prevent land grabbing and other disputes by swiftly blocking hundreds of land parcels

Goa Marriage Registration
(https://reg.goa.gov.in)

Marriage registration is one of the most important tasks connected to a wedding. Marriages are registered in the State of Goa under the Code of Civil Registration irrespective of their religions. Marriage Registration offers a juridical status to the marriages under the law. Marriage could be proved by the certificate of marriage issued by the Civil Registrar.

In order to improve upon the existing system, the State Centre developed and implemented a complete workflow based system at the behest of the Registration Department of Goa. The Goa Marriage Registration Portal carries out the functions of the Registration Department and digitally processes the application from start to end. The portal also helps the department in better revenue collection, reduction in paper usage, minimise visit to the department and ensures quick services delivery.

Over time, the Portal has developed a comprehensive repository of marriages and divorces records along with a complete demographic profile of the State's population along with data on births. This data helps in planning for the growth of the population and forecasting of government services and expenditures. This data also shed light on women

and aids in stopping juvenile marriage.

Advantages of the Initiatives
● Application Processing time has been reduced drastically
● Verification of Groom and Bride has been relegated to nearby Taluka Centres
● Issues Digitally Signed Marriage Certificates
● Intervenes and Stops Juvenile marriages

Dharani
(https://dslr.goa.gov.in)

Dharani deals with management of both rural and urban Record of Rights (ROR). It aims to bring transparency and swiftness in services provided by the Revenue Department.

Dharani has two parts for managing Urban (Property Card) and Rural (Form I & XIV) Land Records. It is used by the Director of Survey and Land Records (DSLR) and Revenue Department authorities to carry out various functions related to management of Land Records. It facilitates online mutation of land records and is integrated with the Property Registration System, which facilitates automated mutation once the property is registered.

Dharani complies with all the guidelines issued under the National Land Records Management Programme (NLRMP) of Government of India, and is a prime reason behind making Goa as the first state to have complete computerised land records.

Society Registration
(https://societyreg.goa.gov.in)

Society Registration is an online workflow based web application developed for the District-Registrar Offices (DRO) Goa. Through this web app, citizens can submit the application for Society Registration. After approval, they can download certification directly from the web app itself. It has drastically reduced the application processing time and quantified the verification process for any deduplication in name.

▼ Fig. 3.4: Goa Marriage Registration Homepage

e-BIS
(http://goabudget.gov.in)

e-BIS (eBudget Information System) is an online system for budget estimates and finalisation. It is an intra-government system, where budget requirements are entered by departments and later approval from Finance department, receives the required budget.

The system has provision for Budget Planning, Online Budgeting, Budget Estimation at different levels, Budget Finalization, Schemes Creation, Budget Allocation and Distribution, Re-appropriation, Surrender of Funds, Supplementary Demands and Dashboard for Budget. For last four years, this system has been used for presenting the paperless budget in the Goa State Assembly.

eFiling of Court Cases
(https://efiling-mh.ecourts.gov.in)

eFiling system enables electronic filing of legal papers. Using efiling, cases (both civil and criminal) can be filed before the High Courts and District Courts.

The system is aimed at promoting paperless filing and saving time and cost by adopting technological solutions. The State Centre has upgraded the old system. With the new system, advocates can rectify defects and shortcomings in eFilings through online mode. Once defects are cleared, registration number will be allotted to the case. This helps the lawyers to file the case before the appeal period.

Recently, a Justice Clock is also installed in the New High Court Premises. It broadcasts the Disposal and Pendency of the Court Case along with other relevant details.

GST/RBI Memorandum of Error

The activity of GST Memorandum of Error (MoE) comprises comparing the data collected from GSTN Council and RBI, then intimating the RBI of discrepancies if any by way of a MoE. To fast track this process, the State Centre has developed this system to generate the MoE so that timely
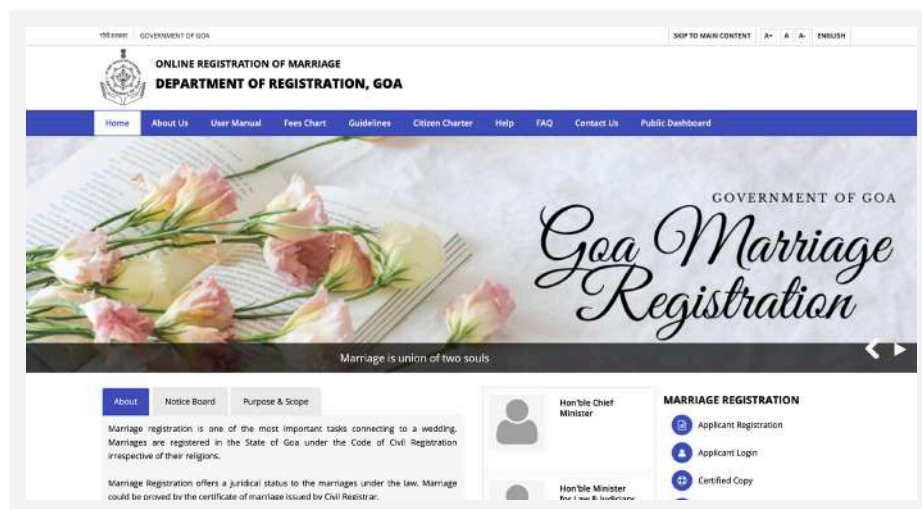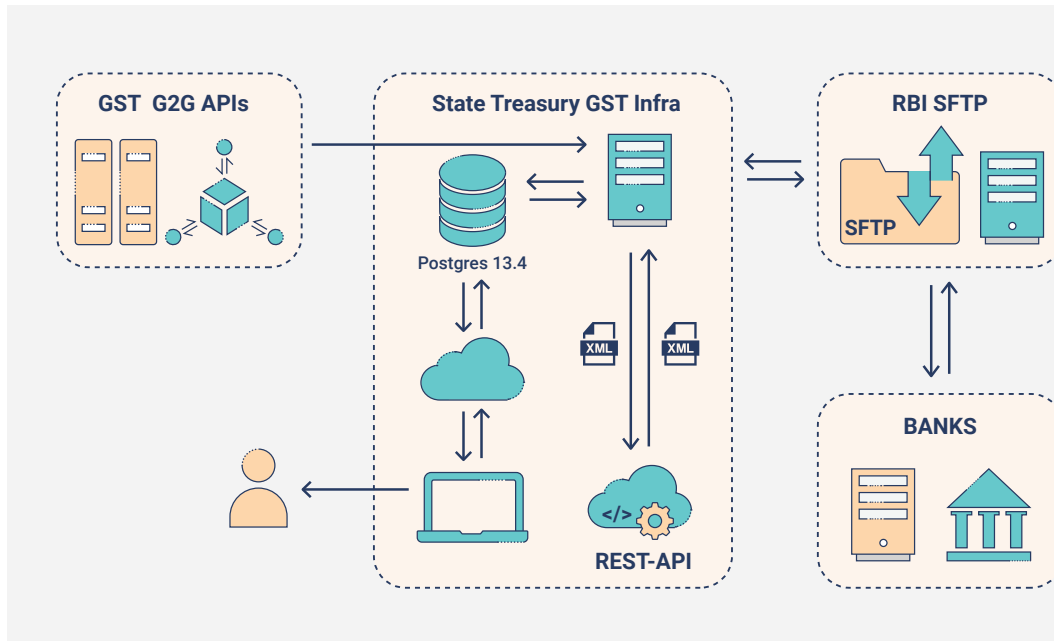
▲ Fig. 3.5: Process flow for GST/RBI MoE Application

reconciliation of GST data can take place at the Commercial Taxes Department.

Advantages of the Initiatives

● The Directorate of Accounts and Department of State Taxes get to know the actual SGST collection on a daily basis from the Account Statement provided by RBI

● Auditors get the monthly Account Statement Ledger provided by RBI

● Banks involvement in ecosystem with RBI facilitates a channel to obtain confirmation of GST payment discrepancy scenarios

▼ Fig. 3.6: Goa Budget Homepage

Goa State Scholarship Portal
(http://schemesdtw.goa.gov.in)

The portal is developed to facilitate the transfer of scholarship funds to the individual student from Department of Tribal Welfare.

The portal provides end-to-end digitization from the point of filling online applications till the payment Channel. It also has provision for filing online grievances.

As of now, it provides the support for following three schemes:

● Pre-Matric Scholarship Scheme (for ST Student of Class V to X)

● Gagan Bharari Shiksha Yojana (for ST Students of Class XI till Post-Graduation)

● Merit Based Scholarship Scheme (for ST Students who have secured at least 50% marks in Class X or XII)

e-Cooperative Management System
(https://coopgoa.gov.in/)

Department of Cooperation, Goa ensures that Cooperative Societies are organised and managed on the lines of the basic cooperative principles for the promotion of the economic interests and welfare of the people. In order to aid the activities of the Department, NIC Goa has developed and implemented software for monitoring of the cooperative societies. The system includes Online Services for Registration of Societies, Renewal, Returns Filing, Audit Report Submission, Online Payment, MIS Reports, etc. It facilitates the Department in Digital Signing of documents using e-Sign and sending documents through secureGov email. A complete 360 degree profiling of legacy data of Registered Societies is also uploaded to the system.

Important Events Organised

NIC Goa provided full technical and VC support for the Office of Hon'ble Prime Minister of India, Shri Narendra Modi during his state visit for inauguration of Mopa International Airport and other events in In December 2022.

Accolades

● CSI NIHILENT Award 2018 for eChallan Payment Gateway

● CSI SIG eGovernance Award of Excellence 2020

● Gems of Digital India 2020 Award for Goa Excise Management Systems

Way Forward

NIC Goa State Centre has a key role in bringing digital governance to the state. All through COVID, the Centre has provided relentless support to the Government. With exciting new projects such as eOffice in the pipeline, it is hoped that the fruitful partnership between the State Centre and the State Government will continue to reap benefits for the Government, Business and Society at large.

**Contact for more details**

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Other Central / State Projects

NIC Goa State Centre has also implemented several high impacting National level projects in the State. Listed below are some of them:

Project	Purpose	Associated Department / Ministry	Type
Vahan and Sarathi	Vehicle and Licence Registration and it's Management	Department of Transport, Government of Goa	G2G, G2C, G2B
GePNIC	Tendering and Auction process	Department of Information Technology, Government of Goa	G2B
ePDS	Food Grain Distribution and Ration Card Management	Department of Civil Supply, Government of Goa	G2C
SPARROW	APAR management for IAS/ IPS/ IFS/ Goa Civil Service	Government of Goa	G2G
Immigration, Visa Foreigner Registration and Tracking (IVFRT) / Online Indian Citizenship / Prior Reference Check	Immigration and Visa issuance and it's Management	Department of Immigration	G2C
Interoperable Criminal Justice System (ICJS) - e-Forensics / Police / e-Prosecution / e-Court / e-Prison	Complete Management of Crime and Control Tracking Network System	Department of Police, Forensics, Prosecution, Court, Govt. of Goa & Ministry of Home Affairs, Government of India	G2G
Arms Licence Issuance System	Issuance of Arm Licence and it's Management	District Magistrate, Government of Goa & Ministry of Home Affairs, Government of India	G2G
e-Sanad	Online Attestation and Apostille of Documents	Regional Passport Office (Ministry of External Affairs)	G2C
CONFONET	Consumer Protection	Consumer Forums at District, State and National Level & Government of Goa	G2C
Access & Benefit Sharing System	Conservation of biodiversity, sustainable use of its bio components and equitable sharing of the benefits arising out of the utilization of biological resources	Goa State Biodiversity Board	G2G, G2B
Case Information System	Registration of cases, preparation of Causelists, publishing of orders & judgments	District Courts and High Court	G2G, G2C
e-Samiksha / e-Pragati	CM level schemes monitoring	Government of Goa	G2G
Online Consent Management and Monitoring System	To implement various pollution control laws in State	Pollution Control Board, Government of Goa	G2B
VatSoft	Collection and monitoring of Value Added Tax (VAT) and Central Sales Tax (CST) on Liquor and Petroleum Products.	Department of Commercial Taxes, Government of Goa	G2B
Goa Panchayat Services	Registration of Births & Deaths, House Tax & Light Tax Collection, Lease Rent Collection, Issuance of Trade Licences etc.	Directorate of Panchayat Raj, Government of Goa	G2B
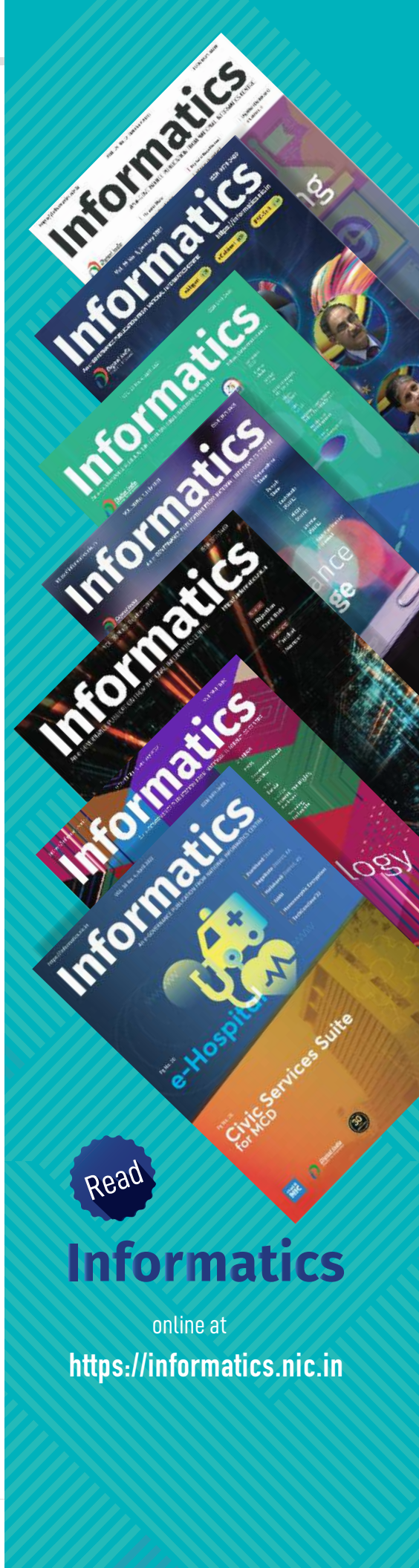
DIGITAL INDIA Awards 2022 *Ceremony*

Realising the enormous potential of digitisation, Government of India launched the Digital India Initiative in 2015 with a motto of "minimum government, maximum governance." It prioritised the adoption of best practices in digital technologies for seamless delivery of digital citizen-centric services Since then, over 12,000 services by various government entities - Central, State, and Local Bodies - have been digitised. These offerings have considerably enhanced access to basic amenities, effectiveness of government services, and information sharing with citizens, especially with women, divyang, and the poor, residing in the remote areas of the country.

Digital India Awards offer a perfect opportunity to highlight such digital initiatives. These biennial awards are instituted under the aegis of National Portal of India, MeitY to honour innovative digital solutions by government entities and at same time, inspire others to emulate the innovations for their services.

The Hon'ble President of India, Smt. Droupadi Murmu presented the Digital India Awards 2022 on Saturday, 7th January 2023 at Vigyan Bhawan in New Delhi. The event was graced by Shri Ashwini Vaishnaw, Hon'ble Minister of Electronics & IT; Shri Alkesh Kumar Sharma, Secretary, MietY; Shri Rajesh Gera, Director General, NIC, and other dignified higher officials.

This edition witnessed the awards being conferred on 22 teams across seven categories. During the event, Shri Ashwini Vaishnaw also presented the Hon'ble President with the first copy of the Digital India Awards 2022 compendium.

Selection Process

The nominations for Digital India Awards 2022 were called upon earlier this year. The Government entities could submit their nominations online through the Rashtriya Puraskar Portal (https://awards.gov.in). Overwhelmingly, over a thousand nominations were received across all seven categories from all over the country. A thorough evaluation of the nominations was carried out in two stages. In the first stage, entries were screened using a scientifically developed evaluation matrix tailored to each award category. In the second stage, under the Chairmanship of the Secretary, MietY, a distinguished Jury composed of senior members from government, academia, and industry reviewed the shortlisted nominations and finalised the awardees in each category.

The Jury

The eminent jury for Digital India Awards 2022 comprised of Shri Alkesh Kumar Sharma, Secretary, MeitY (Chairman); Shri Amit Agrawal, Additional Secretary, MeitY; Shri Rajesh Gera, Director General, NIC; Shri Sushil Pal, Joint Secretary, MeitY; Shri Amar Nath, Additional Secretary, DARPG; Dr M.P. Gupta, Professor, IIT Delhi; Dr. Anjali Kaushik, Professor, MDI Gurugram; Smt. Rama Vedashree, Former CEO, Data Security Council of India; Dr. Kapil Dev Singh, Founder & CEO, CEOUS Age; and Smt. Alka Mishra, Deputy Director General, NIC.

Shri Rajesh Gera
Director General
National Informatics Centre

Shri Ashwini Vaishnaw
Hon'ble Minister of Eletronics &
Information Technology

Smt. Droupadi Murmu
Hon'ble President of India

Shri Alkesh Kumar Sharma
Secretary
Ministry of Electronics & Information Technology

"The Digital India Awards 2022 acknowledge, inspire and motivate not only Government entities but also startups to attain the vision of a digital India. The awards are but a step towards transforming India into a digitally empowered society where people's potential is unleashed by the effective use of digital governance.

Smt. Droupadi Murmu
President of India

"Since the inception of the Digital India Programme eight years ago, India has set an example for the rest of the world by using technology to provide services to ordinary individuals at the grassroots level. How Digital India is affecting the lives of ordinary Indians has become a case study for the whole world.

Shri Ashwini Vaishnaw
Union Minister of Electronics & IT

"Digitization provides perfect tools to deliver seamless benefits to the target groups and reinforces our resolve to transform India into a digitally empowered society and a knowledge economy. Our shared goal is to enable every individual to fully participate in social, economic, cultural and development activities. As India assumes the Presidency of G20 this year, there's an opportunity to inspire the world with our deeply rooted belief in a human centric approach to technology and facilitate greater knowledge sharing in areas like digital, public goods, financial inclusion and technology enabled development.

Shri Alkesh Kumar Sharma
Secretary, MeitY

DIGITAL INDIA Awards 2022

— winners —

Digital Initiatives at Grassroot Level
- e-Vivechna, Madhya Pradesh (Platinum)
- DeGS Computer Basic Training, Jharkhand (Gold)
- Ksheerasree Portal, Kerala (Silver)

Digital Empowerment of Citizens
- e-NAM (Platinum)
- eTransport (Gold)
- Judgment Search Portal (Silver)

Digital Initiatives for Ease of Doing Business
- Mine Mitra, Uttar Pradesh (Platinum)
- eAbkari, Odisha (Gold)
- Invest Punjab, Punjab (Silver)

Public Digital Platforms
States
- Duare Sarkar, West Bengal (Platinum)
- eServices Manipur (Gold)

Central Ministries & Departments
- ICEGATE Portal (Platinum)
- eShram (Gold)

Data Sharing and Use for Socio Economic Development
- Smart Cities Mission, MoHUA (Platinum)
- CBSE (Gold)
- Centre for eGovernance (Silver)
- Invest Punjab, Punjab (Silver)

Digital Initiatives in Collaboration with Startups
- Digital Workforce Management System, Kerala (Platinum)
- Smart Nutrient Management of the Soil, Telangana (Gold)
- Digital Deposit Refund System, Uttarakhand (Silver)

Best Web & Mobile Initiatives Complying with GIGW & Accessibility Guidelines
- Bilaspur District Website, Chhattisgarh (Platinum)
- Kottayam District Website, Kerala (Gold)
- CIPET Dehradun (Silver)

Shri Alkesh Kumar Sharma   **Shri Amit Agrawal**   **Shri Rajesh Gera**   **Shri Sushil Pal**

Hon'ble President of India,
Smt. Droupadi Murmu,
with the Digital India Awards 2022
Winners along with other
dignitaries

Shri Amar Nath   **Dr. M.P. Gupta**   **Dr. Anjali Kaushik**   **Smt. Rama Vedashree**   **Dr. Kapil Dev Singh**   **Smt. Alka Mishra**

Puri, Odisha

Setting a benchmark in delivering ICT Solutions to foster excellence

Edited by **KAVITA BARKAKOTY**

N IC Puri District Centre came into existence in the year 1988 and since then, it has been instrumental in fostering an ICT culture throughout the district. It has implemented a variety of eGovernance projects and helped the District Administration to provide better service to citizens.

ICT Initiatives in the District

Bhu-Arjan
(https://larrmsodisha.nic.in/)

Bhu-Arjan is a land records rehabilitation and resettlement management system that aims to bring transparency to state infrastructure projects. It helps to quickly settle payments to landowners for acquired land. Twelve land acquisition proposals have been successfully approved using this platform to date.

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NIC Puri District Centre has established itself as a state-of-the-art ICT service provider to various departments and stakeholders under the District Administration for enabling transparent, efficient, and reliable Government to Citizen services. It is specially engaged in the development of a variety of web products and services for easing the lives of common citizens using emerging technologies.

DAMPS

Odisha has been confronted by a number of natural disasters, such as floods and unbearable heat waves in recent times. Due to which, DAMPS (Disaster Assistance Monitoring & Payment System) was created to provide relief to ordinary citizens of the state. The system provides payment of ex gratia to next of kin of persons losing their lives due to disasters in the shortest possible time.

SWIMS
(https://swims.nic.in/)

Under Drink from Tap Mission, the District Centre developed and implemented SWIMS (Smart Water Integrated Management System) across the District, which with help of IoT devices captures real-time data for decision-making and public reporting. It aims to reduce water wastage, maintain quality and ensure all-day supply.

MSME Entrepreneurship Memorandum Application
(http://www.msmeodisha.gov.in)

The District Centre has implemented an online application filing module for Puri District Industry Centre (DIC) to automate the workflow process of Entrepreneur Memorandum (EM) application. It provides opportunity to new small / medium scale business owners / entrepreneurs to apply and take advantage of various G2C services provided by Puri DIC.

Odisha School Teacher Transfer System
(http://www.odishateachers.gov.in/)

The District Centre has implemented the Odisha Teacher Transfer System in eleven Block Education Offices, District Education Office and Sarva Shiksha Abhiyan's District Project Coordination Office of this district to maintain transparency in teacher transfer system. It aims to provide teachers with an easy way to apply for a transfer and track the status of their transfer request. It also helps to maintain the teacher strength in rural and urban schools according to the State's pupil-teacher ratio policy.

Other Key Initiatives

District Record Digitization

Puri was one of the regional Head Quarters. Its Record Rooms are brimming with centuries old

▲ Fig. 4.1: Shri Ram Nath Kovind, Hon'ble President of India (2017-2022), during his state visit in Puri. In frame, Hon'ble Governor of Odisha, Shri Ganeshi Lal, along with other higher state officials.

revenue records and other documents, some of which are associated with Shri Jagannath Temple.

In order to provide access to these records, the District Administration has undertaken the scanning and digitization of these documents, for which the District Centre has provided all possible IT support.

Bhulekh
(http://bhulekh.ori.nic.in/)

Bhulekh is a state-level mission model project under Digital India Land Record Modernization Programme, which aims to maintain and update the digitized Record of Rights (Pattas) across the state.

This helps citizens to view and download their Pattas in Odia and English. This has been implemented all relevant tehsils of the district.

ePauti

ePauti is an online land revenue collection system, which allows citizens to pay their land revenue digitally without visiting revenue offices. The system has been again successfully implemented in all elevent tehsils.

eOffice

The District Centre has successfully implemented eOffice across various government departments and offices in the district, including Shri Jagannath Temple Administration office.

National Child Tracking System
(http://www.trackthemissingchild.gov.in/)

National Child Tracking System for Missing and Vulnerable Children is a web-enabled Child Protection Management Information System.

It aims to create a systematic and centralised mechanism for tracking children who either run away or are missing for various reasons. The system has been successfully implemented in District Police Headquarters with objective to facilitate fast recovery and rehabilitation of missing children in District.

Infrastructure, Network, and Web Services

ICT Support to the Camp Office of the Hon'ble President of India

During the year 2021-22, the Hon'ble President of India, Shri Ram Nath Kovind, and the Hon'ble President of India, Smt. Droupadi Murmu, paid the official visits to Puri. During their respective stays, the Centre provided all-possible ICT support to the Camp Office of His / Her Excellency.

Video Conferencing (VC) Services

The District Centre successfully provided VC support during the Celebration of International Yoga Day at Konark. The event was attended by the Hon'ble Minister of Electronics and Information Technology, Shri Ashwini Vaishnaw.

The District Centre also conducted a VC session during the inauguration of Shri Jagannath Medical College and Hospital at Puri by the Hon'ble Chief Minister of Odisha, Shri Naveen Patnaik, in the august presence of Hon'ble Minister of Health, Shri Mansukh Mandaviya.

Web Development and Management

The District Centre has actively participated in the development and management of several government websites in order to facilitate better citizen e-services. Some major web projects handled by the Centre are listed below;

PKDA Portal: Puri-Konark region has emerged as a popular investment destination. To aid the physical development of the region, the District Centre created a web-portal for the Puri-Konark Development Authority (PKDA). It is bi-lingual and fully accessible in both Odia and English, and serves as an authoritative source of information pertaining to the authority. It can be accessed at **https://pkdapuri.nic.in**.

Puri Police Portal: Puri Police Portal is a first of its kind portal in the state, to offer District Police services online. It lists information on nearby

NIC Puri has been extending excellent support to Puri District Administration in various eGovernance applications. I appreciate Bhu-Arjan which simplifies the Land Acquisition Procedure for construction of Shri Jagannath Heritage Security Zone and the co-related projects. DAMPS has also sped up the ex-gratia benefits to the victims under different categories. The eOffice automation system at Office of the Shri Jagannath Temple Administration reduces the workload in different festive occasions.

The Proactive support from NIC Puri to roll out various eGovernance projects and sharing of government information through the District website and other 7 different official websites as well as the active support during the General election, By-election, GP-election and ULB-election.

I wish all the best to NIC for their future endeavours.

Samarth Verma, IAS
District Magistrate & Collector, Puri

Police Station, Community Police, and Mahila and Shisu Desk and provides information on rules and regulation to be followed during special occasions such as Rath Yatra. It can be accessed at **http://puripolice.nic.in**.

Other web projects include, web portals for Puri Municipality **(http://purimunicipality.nic.in),** Shri Jagannath Sanskrit Visvavidalaya **(https://sjsv.nic.in),** Gopabandhu Ayurveda Mahavidyalaya **(https://gampuri.nic.in),** and Samanta Chandra Sekhara College **(https://scscollge.nic.in)**.

In addition, the District Centre team also manages social media accounts for Puri Administration.

Way Forward

NIC Puri District Centre has established itself as a state-of-the-art ICT system provider to various stakeholders under District Administration and will continue to work in the development of a variety of digital services utilising the latest technologies.

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Sri Ganganagar, Rajasthan
Creating Opportunities in the Agrarian District through ICT

Edited by **MUKESH KUMAR RALLI**

Since its establishment in 1988, the NIC Sri Ganganagar District Centre has provided ICT services to the District Administration and other Central / State government departments in the district. To support the Digital India Programme visioned by the Government of India, it is engaged in promoting G2C, G2E, G2G, and G2B digital services in the district. Digital initiatives by the Centre such as Gang Canal, Krishi Mitra, ePass, and Learn Punjabi illustrate its commitment towards achieving the goal of becoming a Digital District.

ICT Initiatives in the District

Gang Canal Regulation Computerization System

Gang Canal Regulation Computerization System aims to provide the latest information of canal regulation systems through a web portal to farmers. The data is periodically updated, every three hours, by the Irrigation Department for

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In 1988, NIC Sri Ganganagar District Centre was established as a nodal ICT agency in the district. Since then, it has served as a platform to promote ICT initiatives, thus facilitating G2C and G2G services to the citizens. Through its website, the Centre is providing the citizens, information on Smart Irrigation, Smart Agriculture and Smart Education.

the water levels on each canal head along with canal opening and closing schedule. Currently, the system is integrated with Sandes and NIC SMS to improve information dissemination. Future integration with SCADA (Supervisory Control And Data Acquisition) will result in enhanced data acquisition.

Salient features

● provides accurate information of water supply of canal and heads

● disseminate market news

● collates and distributes information on various

Government schemes and plans such as crop insurance, diggi construction, fencing, pipeline irrigation etc.

● acts as authoritative source of Information on Government events, circulars, and other updates on meetings of 'Jal Upyokata Association'

Learn Punjabi

The District Administration ensured that education remained uninterrupted during the lockdown. For this, they supported the virtual mode of instruction and encouraged the development of high-quality digital content. With this objective, Learn Punjabi is made accessible through four modes (iOS app / Android app / Website / YouTube). This helped the application to reach a wide audience of students and teachers, who can access the subject-related content with ease, without worrying about the availability of specific devices.

The application is intended to meet the needs of students at all educational levels. Due to its user-friendly and highly accessible interface, even young children can learn Punjabi (Gurmukhi) independently. This application functions through uniquely designed phases of language learning, including Primer, Grammar, and Textbooks (with tutorial videos).

Krishi Mitra

Krishi Mitra app helps farmers, agricultural scientists, and students to get information on the Rabi, Kharif, and Fruit Crops grown in the district and the surrounding region. It provides information regarding planting, fertilizers, irrigation, pests, diseases, harvesting, nursery plant transportation and installation. It also has useful content for learning organic farming techniques.

District Informatics Unit has always played a vital and proactive role in promoting various eGovernance projects and the best ICT culture in the district. It has assisted in successful micro level planning for sustaining various ICT procedures in the district. It has successfully developed android and iOS mobile applications: Gang Canal, Learn Punjabi, Krishi Mitra, E-Pass, which are unique applications on the national level and beneficial to farmers, students, teachers, and other citizens. It has been a key technology partner of administration in many innovative and successful systems.

Saurabh Swami, IAS
District Collector & District Magistrate
Sri Ganganagar

Other Key Initiatives

ePass

ePass was used for issuing online passes during COVID-19 pandemic. It was extremely beneficial during lockdowns. It enabled citizens to apply for Curfew passes without physically visiting administration offices.

Revenue Officers Performance Monitoring System

Revenue Officers Performance Monitoring System (ROPMS) is a district-level analytics dashboard designed to evaluate the monthly work of revenue officers and aims to increase the accountability of all revenue departments and assist higher authorities in improving human resource management. In addition, the Centre is working on the development of Sinchai Mitra, a
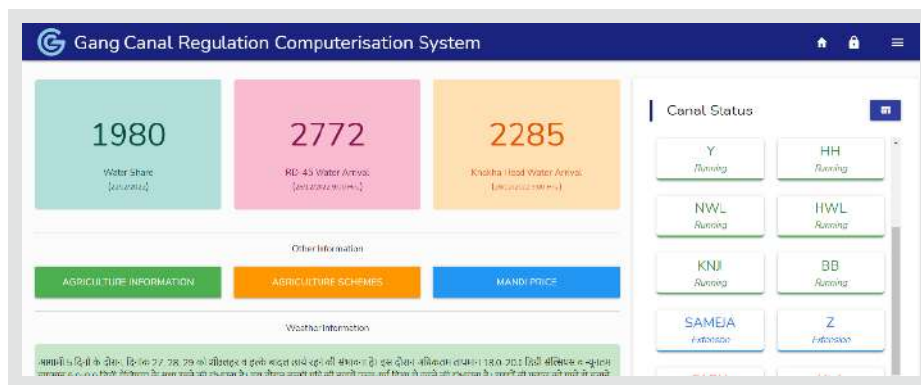
▲ Fig. 5.1: Ganga Canal Computerisation Dashboard

farmer-friendly application where they can obtain information about the efficient use of irrigation.

Project Implementation

NIC Sri Ganganagar District Centre has played an instrumental role in spreading ICT culture in the agrarian district. In order to leverage the influence of eGovernance in the district, the Centre has been involved in the localization and implementation of a number of Central / State-level projects. These include Digital India Land Records Modernization Program (DILRMP), Integrated Financial Management System (IFMS), Pradhan Mantri Kisan Samman Nidhi (PM-KISAN), integrated Road Accident Database (iRAD), eTransport - Vahan and Sarathi, Arms License Issuance System, Civil Registration System (Pehchan), Shala Darpan electronic Public Distribution System (ePDS), Rajasthan Business Register, ePanjiyan, ASHA Soft, NICCI Chatbot and D-Flow.

Accolades

● National Awards for eGovernance (Gold) for Gang Canal Regulation Computerization System by Government of India at National Conference on eGovernance, 2022

● Bronze Award of Excellence in Research to Shri Paramjeet Singh for Promotion of eGovernance Research by Director General, NIC, 2021

● Award of Appreciation by District Administra-

NIC District Centre, Sri Ganganagar has played a pivotal role in the development of various citizen-centric projects like Gang Canal, Learn Punjabi, Krishi Mitra, ePass, District Website (ganganagar.raj.nic.in), and Nirwachan Mitra app. Moreover, the District Centre has been instrumental in prevailing and leading the pace of eGovernance activities in the district. Their endeavour has ensured seamless connectivity and technical support to the district administration and general public. I congratulate the entire team who have been working tirelessly and relentlessly providing sustainable support and services.
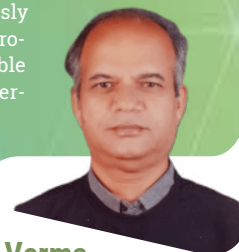
Jitendra Kumar Verma
Sr. Technical Director & SIO

tion to Shri Paramjeet Singh, ADIO, on Independence Day (2022), Republic Day (2010, 2013, 2020), and National Voters Day (2014)

Way Forward

NIC Sri Ganganagar District Centre is well prepared and continues to provide all technical support to the district administration in order to realise the dream of "Digital India." The Centre has made a name for itself in the district as a result of its dedication to achieving excellence. In future, it aims to roll out services like Sinchai Mitra to empower the agriculture sector in the district.

▼ Fig. 5.2: Dr. Jitendra Kumar presenting the NIC Sri Ganganar District Centre team with the National Award for eGovernment for its Gang Canal Regulation Computerisation System.

Leh, Ladakh
Endeavoring to achieve Digital Governance in the Land of High Passes

Edited by **MUKESH KUMAR RALLI**

Leh, known as the "Land of High Passes," is a rugged but beautiful mountainous district in Northern India. Its beauty is preserved by rugged mountains, winding roads, and a vibrant culture.

After the Jammu and Kashmir Reorganisation Act, 2020, Ladakh became a Union Territory in its own right and Leh was designated as its capital. Since then, NIC Leh District Centre is also looking after the affairs of NIC Ladakh UT Centre at Leh under guidance of SIO NIC Ladakh.

ICT Initiatives in the District

Registration of Labour (RoL) App

RoL Mobile aims to facilitate registration of migrant and native labourers in order to make sure the authenticity of particulars for issuance of labour cards. It has built up a database of labours for assessment of availability of workers for various developmental and agricultural works in the district.

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> NIC Leh District Centre has established itself as a provider of cutting-edge ICT systems to various agencies and stakeholders within the District Administration. It is actively engaged in the development of several citizen services utilising emerging technology for a variety of socioeconomic areas.

In addition to the mobile app, a web portal to assist stakeholders has also developed. The app was built under the District Governance through Mobile Challenge 2020.

LIFMS
(https://lifms.ladakh.gov.in)

Ladakh Integrated Financial Management System (LIFMS) is a web based application which helps in online budgeting. It provides preparation and authorization of budget alongside expenditure monitoring in a real-time time basis. It aims to provide easy coordination among DDOs, Administrative Departments and Finance Department. The application has been designed and developed by NIC Jammu and Kashmir and implemented by NIC Leh District Centre for Finance Department Ladakh.

eGazette
(https://egazette.ladakh.gov.in)

eGazette publishes official Gazette and Notifications issued by the Leh District Administration and is being of great use to Industry, Citizens, and Governments. It has been integrated with Parichay for two-factor-authentication. As of now, 146 notifications have been published on the portal.

eHospital
(https://ladakh.ehospital.gov.in)

eHospital is a hospital management solution that aims to provide better health services with use of ICT. As of now, the District Centre has implemented the solution in One District Hospital and 4 Sub-District Hospitals / Community Health Centres across the district.

Subsequently, all other 15 hospitals are planned to be onboarded in phase manner to achieve complete implementation of eHospital in the district.

Ladakh e-Tender
(https://tenders.ladakh.gov.in)

Leh District Centre has reconfigured and implemented the NIC eProcurement solution for the UT of Ladakh. All Tenders of ₹1.00 lakh and above are floated using this solution.

Since 2020, as many as 17921 e-tenders with a cumulative value of ₹8749.99 crore have been published / finalised through the system.

REWA
(https://socialwelfare.ladakh.gov.in/rewa)

REWA is an initiative of the Office of Lt. Governor for providing financial assistance to students for coaching of various competitive examinations, including NEET, JEE, UG CLAT, and NDA.

eOffice

eOffice aims to usher government departments into era of efficiency, responsiveness, and transparency, by providing quantifying government processes. Currently, it has been implemented in District Magistrate and line department offices. For its successful implementation, a number of hands-on training and workshops have been held.

iRAD

iRAD is a central accident database, aims to establish an accurate and structured framework for road accident data collection across India. For better implementation, the District Centre has conducted over 100 hands-on training to all the stakeholder departments at their field offices.

LAHDC Management Information System

Ladakh Autonomous Hill Development Council (LAHDC) is an Autonomous District Council that administers the Leh district of Ladakh, India. For helping the council in terms of making financial decisions, an online management information system is developed and implemented for the Council. It provides information in terms of scheme wise, object wise status of expenditure books. It also reports availability of funds for taking various decisions.

ePDS
(https://feast.ladakh.gov.in)

NIC Leh has implemented various web applications viz. Aadhaar Enabled Public Distribution System- AePDS, FEAST – Allocation & Supply Chain Management and RCMS under Public Distribution System for effective delivery of services by Department of Food Civil Supplies & Consumer Affairs.

NGDRS Ladakh
(https://ngdrs.ladakh.gov.in)

NIC Leh Centre has implemented NGDRS for enabling property registration across all ten Sub-Registrar Offices in Union Territory. The system has been also enabled for backlog data digitization and SMS services alongwith e-KYC and e-Payment. It is also being integrated with e-Stamping, for paying stamping duty electronically.

HME Admissions
(https://hmeladakh.org/)

The District Centre has designed and developed an online admission application for the Health & Medical Education (HME) Department Ladakh. It helps candidates to apply for seats in colleges for central pool of MBBS and state pool of BDS seats.

Web Development

The District Centre is actively involved in the management of District and UT administration websites. Leh District website (**https://leh.nic.in**), Ladakh UT website (**https://ladakh.nic.in**), Social Welfare Department website (**https://socialwelfare.ladakh.gov.in**), and Industries and Commerce Department website (**https://industries.ladakh.gov.in**) are a few examples.

Other Key Initiatives

COVID-19 Response

NIC Leh played a crucial role when it came to COVID-19 management. Some of the key activities done by the District Centre are below,

- Implemented SMS service for RTPCR results and devised a way to report negative results online for immediate notification

- Supported UT and District Administration with VC and infrastructure services to organise events like live web streaming

- Implemented ePass service for issuing emergency passes during lockdown

- Designed a webpage, which act as a single point of various information related to COVID-19 setting and managing District Control Rooms

Elections

The District Centre provided its full support to UT and District Administration during all General and UT elections. It has successfully implemented ETPBS, SUVIDHA, CVigil, and other tools needed for smooth pre- and post-election processes. In view of COVID-19, it also provided virtual training to master trainers for election functioning.

Project Implementation

District Centre has implemented several State and Central Government projects to boost

▼ **Fig. 6.1: Parliamentary Standing Committe on Communication and Information Technology visit to NIC Leh District Centre**

The District Administration Leh is taking strides in implementation of "Digital India Programme" by taking new initiatives at the district level in the field of Information and Communication Technology by implementing eGovernance projects and various citizen centric Schemes of the Government using ICT driven solutions. In achieving the goals of the Administration in the field of ICT and implementing such initiatives at the ground level, NIC District Centre Leh is playing a pivotal role at every stage. NIC Leh has provided ICT support during the visit of VVIPs, Parliamentary Committees and webcasting of UT level events.

Shrikant Balasaheb Suse, IAS
Deputy Commissioner, Leh

eGovernance in the District, namely, Vahan, Sarathi, eChallan, eCourts, ePrison, IVFRT, CPGRAMS, NDAL & ALIS, GPF Ladakh, PM Kisan, Birth and Death Certificate Portal, Trade Licence Module, and Rent Collection App.

Important Events Organised

- Provided VC services for Hon'ble Prime Minister's Pariksha Pe Charcha and Gareeb Kalyan Sammelan interactive sessions

- Provided technical support during UT and District Administration events, including ICE-Hockey Tournament, Yoga Day Celebration, Nomadic festivals, Ladakh Festival, and Environment Day Celebration

- Provided technical support during visits of important dignitaries including His Holiness the 14th Dalai Lama and Hon'ble Union Minister of Defence, Shri Rajnath Singh

Way Forward

NIC Leh District Centre is committed to provide the best of digital services to citizens of Leh by leveraging the potential of the latest technologies. It is currently working on the several projects such as eOffice and eHospital and plans to roll-out eHRMS, eInventory, RTI Online, LAHDC CCDF, eAbgari, and eDaakhil in near future to benefit both government and society.

Bilaspur, Chhattisgarh

Using ICT for Good Governance committed towards Digital Governance

Edited by **KAVITA BARKAKOTY**

Also known as Nyayadhani, the land of law, Bilaspur is swiftly transitioning from an agrarian district to a digitally enabled knowledge district. Its citizens are rapidly adopting digital products and services, which has propelled the district onto the Digital India map. NIC Bilaspur District Centre has played a significant part in this, and the results of its efforts are now evident.

ICT Initiatives in the District

JanChaupal
(https://janchaupal.cg.nic.in)

JanChaupal is a citizen governance system, developed on behest of the Hon'ble Chief Minister of Chhattisgarh. It aims to narrow the gap between citizens and state government by creating a channel for general public to meet Hon'ble Chief Minister and present their grievances. As of now, over 28,000 citizens have used the portal to reach the office of Hon'ble Chief Minister.

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Manoj Singh
Scientist-B
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Bilaspur is swiftly transitioning from an argarian district to a digitally enabled knowledge district. Its citizens are rapidly adopting digital products and services, which has propelled the district onto the Digital India map. In order to leverage this transition, the NIC Bilaspur District Centre is taking significant steps in narrowing the gap between Government and Citizens, and the results of its efforts are are clearly evident.

TL Online
(http://eservices.bilaspur.gov.in/tlonline)

Time Limit Letter Disposal System is a cloud-based application that tracks all types of letters marked to officers by the District Collector to act upon in a given time period. The system also has an emergency provision, which allows the District Collector to intervene at any stage of application progress via Video Conferencing.

Revenue Court System
(https://revenue.cg.nic.in)

All courts, from Collector to Naib Tehsildar, have been onboarded the Revenue Court System. All the steps, like writing the order letter, recording the evidence, passing the final order, etc., are done through this system, from the time the case is filed to the time it is closed.

District Mineral Fund
(https://www.dmf.cg.nic.in/)

This portal aims at computerising the workflow of District Mineral Fund utilisation in district for the benefit of citizens and region affected by the mining related operations.

eAwaas

The aim of eAwaas portal is to administer the allotment of state government residential accommodation to all eligible government employees in the district. The allotment process is completely automated and is done through the online application of allotment.

Web Development and Management

NIC Bilaspur has pro-actively participated in development and deployment of several websites for district and state administration. These websites are developed using Secure, Scalable. and Sugamya Service (S3WAAS) and serve as an authoritative source of information regarding official notifications. Some of the web projects managed by the District Centre are:

Bilaspur District Website
(https://www.bilaspur.gov.in)

Bilaspur District website is a bilingual and

Fig. 7.1: Bilaspur District Website Homepage

GIGW-compliant website that acts as an all-comprehensive source of district information on tourism, citizen services, tenders and other official state notification. It also provides information on history, demography, culture, and festivals of the districts.

Chhattisgarh State Legal Services Authority Bilaspur
(https://www.cgslsa.gov.in)

This website was developed to help Chhattisgarh State Legal Services Authority Bilaspur in order to provide 'access to justice for all' so that justice is not denied to citizens by reason of economic or other disabilities. The website sheds light on rules, regulations and other provisions pertaining to authority.

Board of Revenue
(https://www.bor.cg.nic.in)

The website acts as an authoritative source of information released by Board of Revenue, Chattisgarh. It regularly publishes cases fixed in Hon'ble President Circuit Raipur and Hon'ble Member Circuit Court, Bilaspur.

District Police Bilaspur
(https://www.districtpolice.bilaspur.gov.in)

This is the official website for Bilaspur Police. It regularly publishes the advisories, rules and notifications released by the District Police.

▼ Fig. 7.2: Board of Revenue Website Homepage
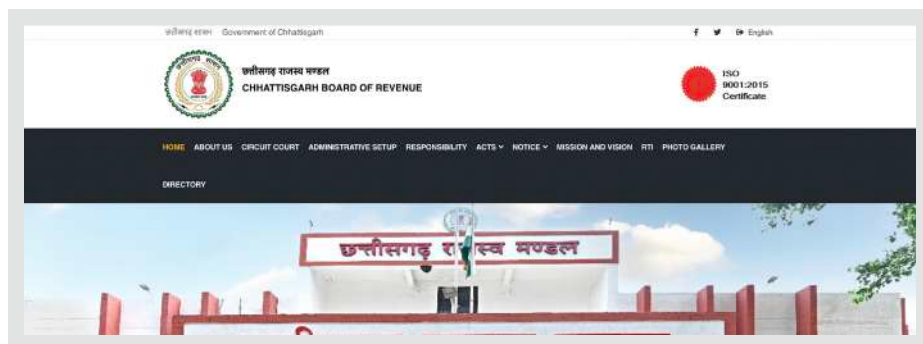
The District Centre has also developed and been maintaining websites for departments and organisation like State Mental Hospital Bilaspur **(https://www.smh.bilaspur.gov.in)** and Govt. E.R. Rao Postgraduate Science College, Bilaspur **(https://www.sciencecollegebilaspur.ac.in)**.

Other Key Initiatives

Project Implementation

In order to leverage the impact of eGovernance in the District, the District Centre has implemented several Central / State projects across the districts, including CPGRAMS, eHospital, Indian Citizenship, IVFRT, Arms Licensing Information System (NDAL-ALIS), Vahan& Sarathi, iRAD, Bhuiyan & Bhu-Naksha, eManec, e-Karmic Sampada, e-Kosh, Janshikayat, Samadhan, eProsecution, and File Monitoring System.

Infrastructure and Network Services

IT support for conducting elections

The District Centre has provided extensive support to commission for smooth conduct of election in the district. During elections, it has successfully implemented and monitored all election-related IT applications, including polling party creation, polling parties randomization, EVMs and Micro-observers, CTOPP and C-VIZIL, poll day monitoring system, Genesis, Electronic

NIC District centre is providing continuous support in implementation of various IT related projects in Bilaspur District. The support of NIC for development and operation of public digital goods is truly remarkable. I am hopeful that NIC will continue to spread IT awareness to actively support the eGovernance initiatives of the District Administration. I wish to take this opportunity to thank NIC District Centre, Bilaspur for their support and cooperation in implementing various eGovernance initiatives in the district.

I believe that NIC will keep up this good work and continue to provide us with technical expertise, innovative ideas and action plan for successful implementation of ICT for the benefit of citizens.

Saurabh Kumar, IAS
Collector & District Magistrate, Bilaspur

Transmission Postal Ballot System, Counting software etc.

Videoconferencing

District Centre has setup several VC Studios in key district offices including District Hospital Bilaspur, Manthan Meeting Hall of Collectorate, Divisional Commissioner Office Bilaspur. VC was extensively used during COVID-19 for smooth conduct of services.

Technical Support

District Centre has been providing 24 x 7 support to District Administration and other important offices in availing ICT and Network Services. Some of the offices are Krishi Upaj Mandi, Central University, Tahsil Office, ZilaPanchayat, SP Office Collectorate, High Court, District Court, Commercial Tax, and Central Jail.

Way Forward

NIC District Centre Bilaspur has played a key role in promotion of eGovernance culture in district through training and developing applications. It has pioneered in providing web-development services and developed several websites for the District Administration.

MeriPehchaan

National Single Sign-On for Citizens of India

Edited by **MOHAN DAS VISWAM**

The Ministry of Electronics and Information Technology proposed and entrusted the three core agencies National Informatics Centre (NIC), Centre for Development of Advanced Computing (C-DAC), and National eGovernance Division (NeGD) to build a National Single Sign-On (NSSO) platform "MeriPehchaan" for citizens with an intention to eliminate the need to repeatedly prove their identities to access different government applications.

The platform was launched by the Hon'ble Prime Minister of India, Shri Narendra Modi on 4th July 2022 at Gandhi Nagar, Gujarat on the occasion of Digital India Mahotsav.

The portal is available for all the citizens at https://meripehchaan.gov.in/.

Onboarding

The NSSO platform is an extensive collaboration amongst three mainstream SSO platforms

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MeriPehchaan is the one-stop authentication platform for Government and Public services. It provides users with seamless and secure accessibility using only a single set of credentials. This intuitive platform is an extensive collaboration of the three mainstream SSO platforms JanParichay, e-Pramaan and DigiLocker. Together they form a citizen-centric architecture of the National Single Sign-On to enhance the user-experience to access different applications.

JanParichay, e-Pramaan, and DigiLocker. It allows users to onboard the platform either using their existing login credentials or by generating login credentials, viz. username and password with their basic profile details such as Name, Gender, Date of Birth, and Mobile Number. They may perform eKYC using their UIDAI Number (Aadhaar), Personal Account Number (PAN), and Driving Licence.

Post-authentication, users may access the service integrated with any of the three SSO platforms. The comprehensive interoperability in between the three SSO platforms provides seamless user experience when they login to any of the three SSO platforms.

Registration on "MeriPehchaan" is free of cost i.e., users are not required to pay any charges for using its services.

NIC took the responsibility to strengthen the National Single Sign-On platform with inclusion of JanParichay and by contributing in all possible manners.

Features

MeriPehchaan aims to eliminate individual and repetitive sign-on procedures by centralising user authentication and identity management at a central identity provider.

It increases user productivity on a national level as its intuitive interface allows better user mobility and provides seamless access to multiple services and applications by authenticating just once.
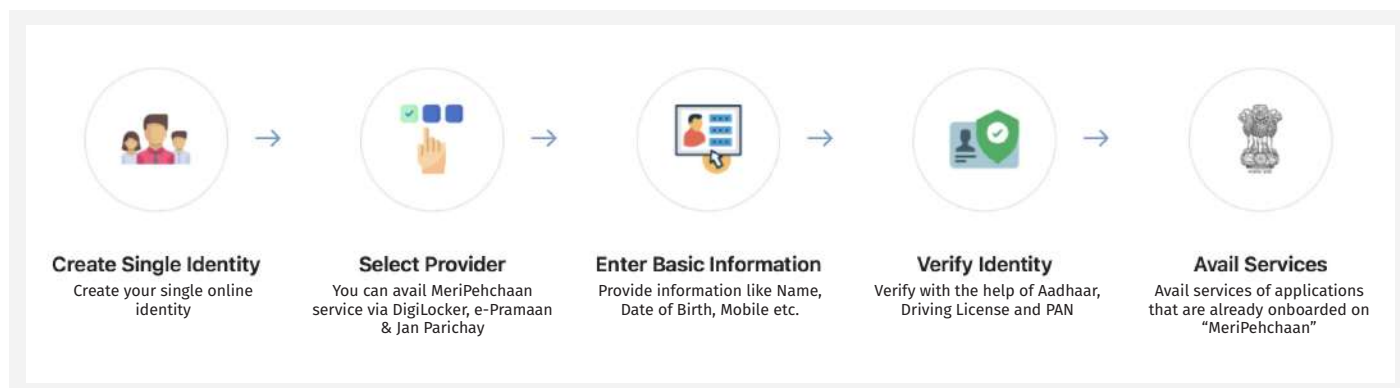
Some of the key features of MeriPehchaan NSSO are

- Multi-factor authentication as per specific service policies
- SignUp using Social Account
- Aadhaar/ PAN/ Driving Licence based eKYC for user verification
- Manage multiple accounts with a single mobile number
- Government users can login using Parichay
- Password-less authentication

▲ Fig. 8.1: MeriPehchaan onboarding process

Technologies Used

Some of key technologies used for the development of MeriPehchaan NSSO platform are

- Go for API application
- ReactJS / JavaScript / jQuery for Front-end
- NoSQL Database for User Profiling
- Key value pair for Caching Database
- Python and Java for Consumer Message Broker
- Java for Web Application

Innovation Applied

Users can access the various integrated services by logging-in via MeriPehchaan NSSO. They can also utilise the platform using JanParichay and other SSO options i.e., DigiLocker, e-Pramaan, CSC, and Parichay to access and use the services for the SSO platform that they are registered with.

Services are integrated with the NSSO platform by following any of the three integration approaches i.e., Open API, OAuth 2.0, and SAML 2.0 as per their requirements.

Key Benefits

MeriPehchaan removes the need for users to continually confirm their identities to multiple applications and maintain separate credentials for each application, while also assisting in distinguishing legitimate applications from bogus ones. On the other side, for the application owner, it helps them by saving their time, effort and cost to build the authentication systems for every service independently.

Some of the other key benefits of MeriPehchaan SSO platform are

- **Seamless User Onboarding:** Citizens can login using their social media accounts, viz. Google,

In the current eco-system of evolving and sophisticated cyber threats, MeriPehchaan allows users to access multiple applications by adhering to the recommended security standards. MeriPehchaan is a landmark initiative by MeitY and an example of true collaboration as it has been rolled out by three organizations ie. NIC, CDAC and NeGD as a unified endeavour.

R.S. Mani
Dy. Director General & HoG

▼ Fig. 8.2: MeriPehchaan Dashboard
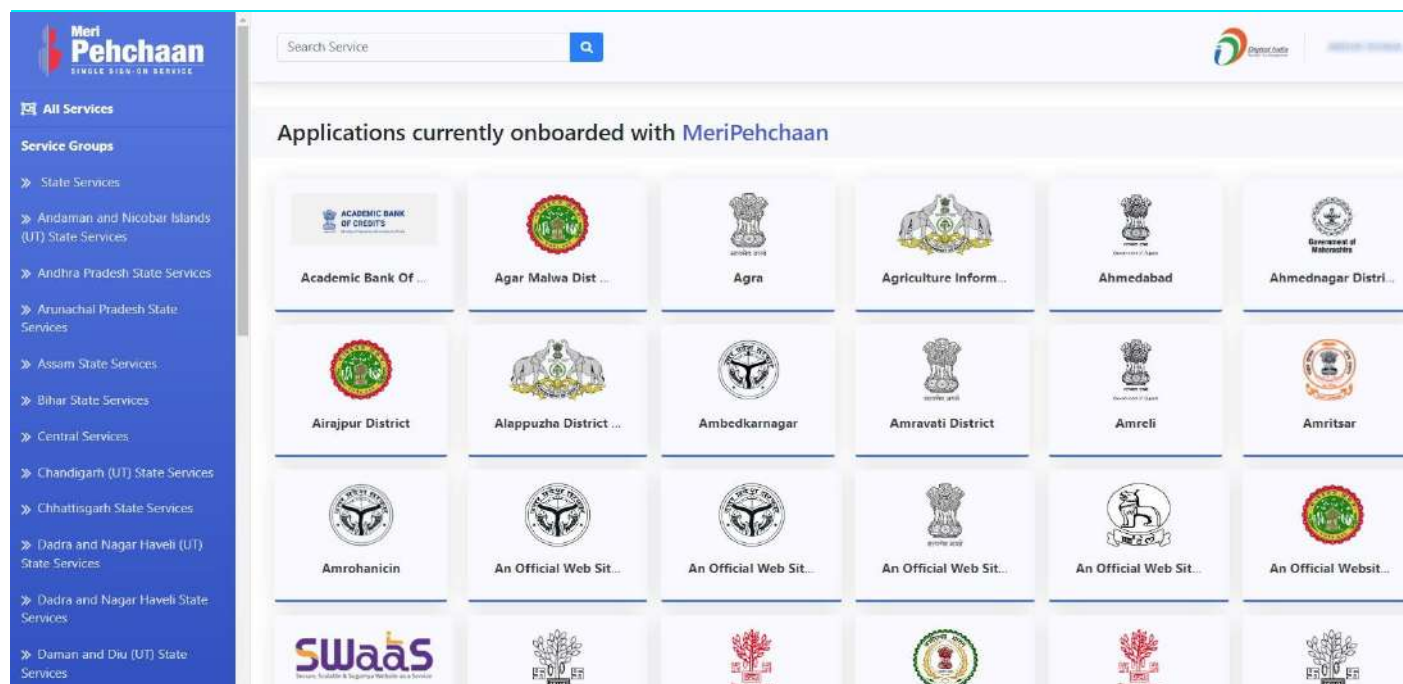
To deliver on the vision of Hon'ble Prime Minister's "Digital India Mission," MeitY has implemented MeriPehchaan, the National Single Sign-On platform of the Government. It provides users with enhanced secure authentication to access citizen-centric services using a single set of credentials. With seamless on-boarding of applications, MeriPehchaan provides application owners with a well-designed authentication and identity management framework.
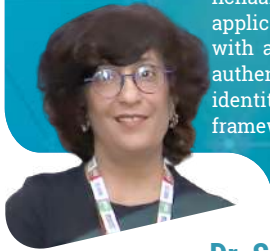
Dr. Seema Khanna
Dy. Director General
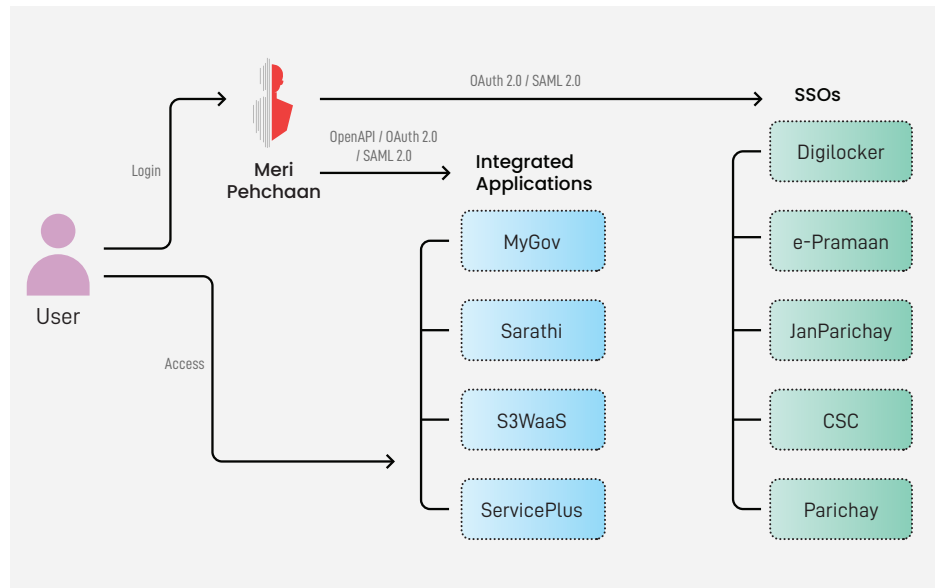
▲ **Fig. 8.3: MeriPehchaan Architecture**

Facebook, GitHub, Twitter and LinkedIn accounts while government users can login via Parichay, CSC accounts as well

● **User Authentication:** Services can force users to authenticate themselves over certain parameters before granting accessing the service

▼ **Fig. 8.4: MeriPehchaan Application Layers**

● **Language Interoperability:** Applications are accessible in multiple languages namely Hindi, English, Tamil, Malayalam, Marathi, Telugu etc.

● **Standardised Registration:** Users can login via Aadhaar, PAN, and Driving Licence

● **Reusable User Profile:** Users will be able to reuse the MeriPehchaan profile information to access other Government services

● **Safe and Secure:** Completely safe as SSOs under MeriPehchaan take care of Aadhaar data and keep Aadhaar details in the Aadhaar vault as per the guidelines of the Aadhaar Act

● **In-house Parichay Authenticator** adds extra level of security

● **User Analytics:** Analytics Dashboard tracks log events for user and service sessions

● **Unified Partner Portal:** Unified Partner Portal to on-board applications and get verified information about Users who has logged in via Meri Pehchan

Summary

The well-designed NSSO solution will significantly reduce complexities of applications regarding the authentication infrastructure and identity management, subsequently, decreasing their maintenance cost while increasing the security. The platform offers various additional benefits i.e., strengthening password policy, reducing risk of data breach, centralised access control, reduced workloads and most importantly ease of doing business.

This would result in a scalable framework offered by the Government to the citizens with a standardised user interface across all the three SSOs thereby enabling a NSSO platform. It will be a stepping stone towards enhancing Government-to-Citizen services.

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ABHA

Key to Your Digital Health Journey

Edited by **MOHAN DAS VISWAM**

One needs to maintain lots of prescriptions, lab reports, radiological reports from different type of health facilities and individual doctors for keeping our health records. As on today, all these are being maintained in paper form in a very unorganised manner. Even though some of the health facilities have already started maintaining health records in electronic form but they are still giving papers to the patients. The ultimate objective is to provide electronic health records in the hands of the citizens through their mobile and share the electronic health record with proper consent. To achieve this objective, Government of India through Ministry of Health & Family Welfare has taken lots of initiatives in recent years.

First effort was made by notifying the Electronic Health Record (EHR) Standard in 2016. The set of standards given therein were chosen from the best available and used standards applicable to Electronic Health Records from around the

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ABHA number is a 14 digit number that will uniquely identify participants in India's digital healthcare ecosystem. It will enable the participants to share and access their health records digitally and help them to avoid long lines for registration in healthcare facilities across the country. Moreover, it will establish a strong and trustable identity that will be accepted by healthcare providers and health insurance payers across the country.

world keeping in view their suitability to and applicability in India. The primary aim of these standards was to ensure syntactic (structural) and semantic (inherent meaning) interoperability of data amongst systems.

In 2017, the Government of India released National Health Policy where in need for digital health technology ecosystem, application of digital health and leveraging digital tools for AYUSH were envisaged. These digital health policy

initiatives paved way for action on ground and lots of initiatives were taken around it.

Meta Data and Data Standards (MDDS) for health domain were notified in 2018. The objective again was to have interoperability among eGovernance applications for health sector requires exchange of information across applications. For which, commonly accepted data definitions for the various data elements and code directories used in eGovernance systems in Healthcare were defined.

National Digital Health Blueprint (NDHB) was released in 2020 which envisaged leveraging 'the potential of digital health for 2-way systemic linkages between primary, secondary and tertiary care to ensure continuity of care'. The key features of the blueprint include a federated architecture, a set of architectural principles, a 5-layered system of architectural building blocks, Unique Health Identifier (UHID), privacy and consent management, national portability, EHR, applicable standards and regulations, health analytics and above all, multiple access channels like call centres, India Digital Health portal and MyHealth App.

To implement the recommendations of NDHB, the pilot project was launched with the name of National Digital Health Mission (NDHM) in the six union territories in 2020. The nationwide rollout of this pilot project was announced by the Hon'ble Prime Minister, Shri Narendra Modi in 2021 with the name "Ayushman Bharat Digital Mission" (ABDM), with an aim to develop the backbone necessary to support the integrated digital health infrastructure of the country. It will bridge the existing gap amongst different stakeholders of Healthcare ecosystem through digital highways.

ABDM building blocks include Ayushman

▲ Fig. 9.1: Registration process at Healthcare Centre using Personal Health Record apps

Bharat Health Account (ABHA) Number, Health Professional Registry (HPR), Health Facility Registry (HFR), Unified Health Interface (UHI). The purpose of ABHA Number is to standardise the process of identification of an individual across healthcare providers. This is the only way to ensure that the created medical records are issued to the correct individual or accessed by Health Information User through appropriate consent.

Collection of basic details including demographic, location, family / relationship and contact details are required. Ability to update contact information easily is the key. The ABHA number is used for the purposes of uniquely identifying persons, authenticating them and threading their health records (only with the informed consent of the patient) across multiple systems and stakeholders.

HPR is a comprehensive repository of all healthcare professionals involved in delivery of healthcare services across both modern and traditional systems of medicine. HFR is a comprehensive repository of health facilities of the nation across different systems of medicine. It includes both public and private health facilities including hospitals, clinics, diagnostic laboratories and imaging centres, pharmacies, etc.

Potential of these building blocks of ABDM can be leveraged if ABHA Number is seeded into the electronic health records of individuals and integrated view of electronic health record is available to the patients through a mobile app. To make this happen, a number of health applications have been developed by government as well as private sector which captures health records electronically.

eHospital Suite of applications consist of eHospital - Hospital Management Information System (HMIS) having 10 modules, Patient Portal – Online Registration System, eBloodBank, Tele-Radiological Portal – eCollabDDS. Reproductive and Child Health (RCH) is an application to monitor pregnant women and children up to 6 years. Central Government Health Scheme (CGHS) is another health application, which has 22 modules to take care of G2G and G2C services. Sickle Cell Anaemia Disease Control Programme Monitoring System is the latest addition in
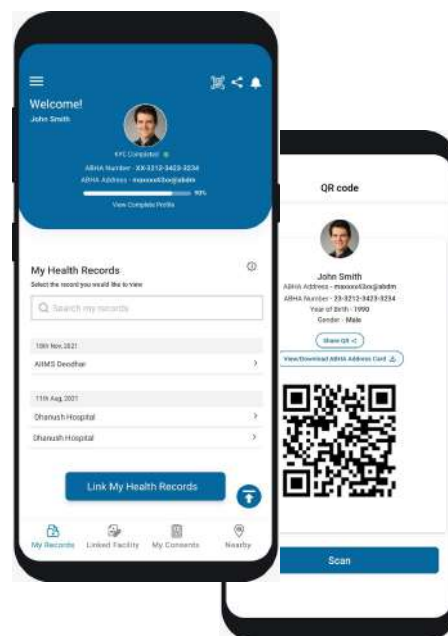
▲ Fig. 9.2: Abha app

healthcare applications. In these applications, health record of individuals is captured. All these applications are at different milestones of ABDM building blocks compliance.
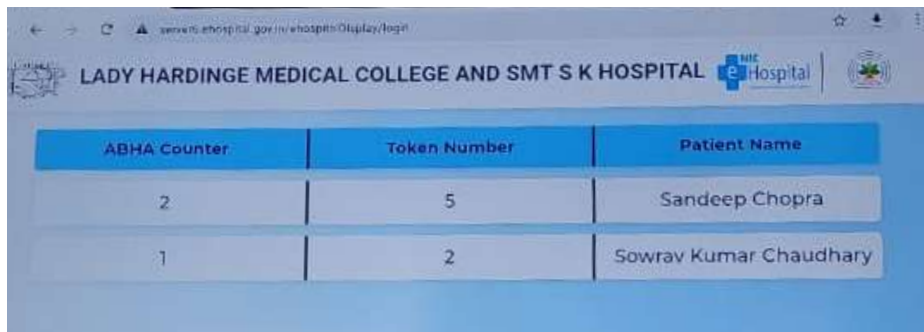
Any health application can be made ABDM compliant which includes 3 milestones. First milestone includes ABHA Number creation and capture & verification for seamless patient registration. Second milestone includes building Health Information Provider (HIP) services to share digital health records via any Personal Health Records (PHR) apps like Aarogya Setu, ABHA PHR App etc. Third milestone includes developing Health Information User (HIU) services to provide view of patient's medical history to authorised healthcare workers with complete consent.

To create ABHA number, view the integrated health record electronically and use other functionalities, Personal Health Record (PHR) apps from NHA (Aarogya Setu, ABHA APR App, etc.) and private sector (eka.care, Driefcase etc.) are already available.

Recently these PHR Apps have been enabled with Scan & Share facility. Every Hospital Registration Area has been assigned a counter agnostic QR Code, which is displayed at different places. Patients or their kith & kin are encouraged to scan the QR Code. In case any PHR app is not installed on the mobile of the person then it prompts to download any of the various PHR apps. Once any PHR app is installed on the mobile then person can create ABHA Number, if not available or login using ABHA Number, if already created. After the login, person can scan the same QR Code available in the registration area. Scanning of QR Code will send the demographic details to eHospital HMIS and PHR app will receive the Token Number. In the registration area, Counter Number, Token Number and Name of the Patient is displayed on a monitor. Person can sit in the

▼ Table 9.1: ABHA implementation statistics

Health Application	ABHA Number Created	ABHA Linked with Health Record	OPD Registration through Scan & Share
Aarogya Setu	4,97,393	Not Available	Not Available
eHospital & Online Registration System	4,38,363	9,42,501	140617
Reproductive and Child Health (RCH) & ANM Online (ANMOL)	5,74,320	29,32,489	Not Available
Sickle Cell Anemia Control Monitoring System	658	In Progress	Not Available
Central Government Health System (CGHS)	47	In Progress	In Progress

▲ Fig. 9.3: Appointment taken at Lady Hardigne Medical College using ABHA app

registration waiting area and go to the respective counter whenever his or her assigned token is displayed and get the OPD Registration slip without any hassles.

This has facilitated 1.5 lakh patients within three months. Patients have skipped the long queues and reduced the turnaround time at the counter significantly, increased the data quality and authenticated patients.

Moreover, the process of transforming Aarogya Setu App from Tracing App into National Health App has already started. Users of Aarogya Setu can create ABHA Number, Scan & Share QR Code for faster OPD Registration, View Integrated Health Record. It also facilitates registration for CoWIN, searching of vaccination slot availability, schedule/ reschedule / cancel appointment for vaccination, download vaccination certificate and raise issues. A person can search nearby Laboratory, Hospital, Blood Bank using this app. Covid Updates, helpline number and other information services are also available in this app. Registration,

Retrieval of Patient-ID & Token Number, OPD timing and view tele-consultation prescription for eSanjeevini is also available on Aarogya Setu App. Soon, Aarogya Setu App users will be able to create ABHA numbers for others also using OTP and Face Authentication. This app is also being enabled for Unified Health Interface (UHI) based services.

UHI, like UPI, will soon become reality and will be a boon for patients for booking of appointment from any hospitals or doctors available on different appointment platforms, make electronic payments and do physical or tele consultations.

Once visit to hospital is over, in case electronic health record is created and linked to ABHA Number then it can be viewed on the same PHR App. In case patient goes to different health facilities and his or her electronic health record is created and seeded with ABHA Number then electronic health record of all such health facilities will be viewable on the same PHR App using same ABHA number.

▼ Fig. 9.4: ABHA app benefits
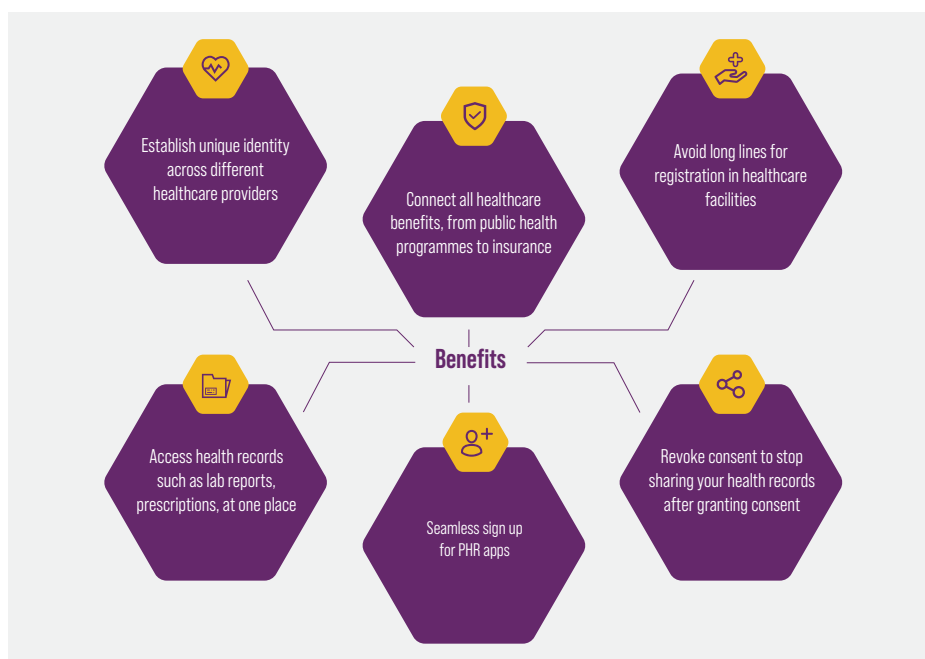
ABHA has laid a crucial foundation for integrating electronic health records. Smartphone based integrated health records have ushered a new revolution in the delivery of healthcare services. I want to take this opportunity to congratulate NIC for enabling their health applications especially eHospital, ORS, CGHS, Sickle Cell and more with ABDM building blocks. I am glad that NIC is supporting NHA in transforming Aarogya Setu into a National Health App, enabling ABHA creation. This feature will expand the utility of Aarogya Setu and contribute to it's further success.

Dr. R.S. Sharma
Chief Executive Officer
National Health Authority

Sickle Cell Anemia Disease Control Programme Monitoring Mobile App and Portal has been developed by NIC to monitor the screening process in 17 states. Mobile App has been facilitated with ABHA creation through all the 3 methods of Aadhaar authentication viz. OTP, Fingerprint and Face Auth. This will facilitate in integrating health record electronically and viewable by patients through ABDM enabled Personal Health Record (PHR) Apps.

Vishal Chauhan
Joint Secretary
Ministry of Health & Family Welfare

It is just a beginning and the journey has started to replace paper-based prescriptions, diagnostic reports with integrated electronic health records in our hands through mobile.

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Appscape

Mobile technology has emerged as a primary tool for governments to serve their citizens. It has bypassed the need for traditional physical networks for communications and collaborations. Additionally, it is far more affordable and accessible, therefore strengthening the nation through better citizen-government interaction. To further nourish this interactivity, NIC has created a repository of more than 230 mobile apps available through both the Android and iOS platforms. This issue of Appscape covers some of the more popular mobile apps launched recently. These apps belong to different sectors such as Agriculture, Administration, Development, Finance, Public Distribution, Transportation, Tourism, Social Welfare, Health and Education.

eKATCH

eKATCH (electronic Kangra Application for Tracking Chunav) application was created to digitise election expenditure monitoring (EEM) and ensure that the details of work done by various EEM teams in all assembly constituencies, such as putting Nakkas in different locations, acting on model code of conduct (MCC) complaints by Flying Squads (FS), recording rally expenditure, tracking liquor movement, and inspecting other election-related expenditure by candidates, are recorded.

During elections, numerous teams were expected to provide a variety of reports, and these reports span many pages and feature substantial gaps, indicating that data was delivered late. To address this issue, eight modules were created, including FS, SST, MCC, Excise, Police, Police Naka, Observer, GST, and Rally, which have proved effective for quick data collection, enhanced transparency, and simpler monitoring of electoral procedures.

eKATCH has not only simplified data monitoring, but also helped in effective and trouble-free data maintenance by the different teams.

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Shri Ajay Singh Chahal (sio-hp@nic.in)

Pathik

Pathik is an android-based bus ticketing app developed by NIC Uttarakhand to enable citizens to access services of Uttarakhand Transport Corporation online, including, seat reservation, ticket cancellation, ticket refund, and bus tracking. It also allows one to check the seat availability so that one can plan the journey with ease.

With the Pathik app, a user can book his or her tickets one month from the expected journey date (excluding date of journey). The bus seat reservation booking facility will be closed two hours prior to the scheduled departure time and date of the proposed trip.

After a successful online transaction, this e-Ticket will be sent to the email address listed in the passenger's profile during registration. This e-ticket can be printed from the person's email or through the Pathik web portal.

The registration is not mandatory and a person can also book tickets as a Guest User. For a Guest User, a valid mobile number is required. On booking the ticket, an SMS is sent to the registered mobile, which can be produced at the time of boarding with valid photo ID proof for travelling.

👤 *Shri K. Narayanan (k.narayan@nic.in)*

Voter Sahayak

Elections make a fundamental contribution to democratic governance. They enable voters to select leaders and hold them accountable for their performance. The power to vote for is an important part of a democratic country like India. However, a number of eligible voters are not able to vote as they are not able to find their names in the electoral roll, inability to find the correct polling station, and inability to navigate through the polling booth. To address all these problems and increase voter participation, Voter Sahayak has been developed on the initiative of District Administration Shimla and developed by NIC Shimla District Centre.

The purpose of Voter Sahayak mobile app is to make the vote casting experience convenient on the day of polling for the electors. It will enable voters to: 1. find the number of persons waiting to cast their vote at a particular polling station; 2. search his or her name in the electoral roll; 3. virtually navigate the polling booth; 4. find concerned officer contact details; and list complete voters in a polling station to detect any discrepancy in the list. On the administrator end, the app also facilitates concerned users to 1. find booth-wise list of persons in queue, 2. voter list of polling booths, 3. area-wise list of booth level officers and 4. contact details of booth officials.

👤 *Shri Ajay Singh Chahal (sio-hp@nic.in)*

Kottayam Tourism

Pehchan Kottayam is famous for its rich cultural heritage and literary tradition. Flanked by the Vembanad lake on the west and the Western Ghats on the east, Kottayam is epitomised by its stretches of vast greenery, paddy fields and huge rubber plantations. To mark the same on tourist maps and connect with a new generation of travellers, Kottayam Tourism mobile app has been developed by NIC Kerala on the initiatives of Government of Kerala.

Kottayam Tourism mobile app is a gateway to various tourism attractions in the district, namely, Backwaters, Picnic Spots, Heritage Places, Hill Stations, Pilgrim Centres and Ayurveda Centres. The app also provides various options for the stay including Rest houses, Resorts, Hotels, Homestays and Serviced villas. By simply tapping a category, the app will lead you to the various tourism destinations in the category and tapping a destination gives you a description and its location on google map. It will also feature various lodging options in and around the destination.

The mobile app also provides facility to contact nearby Police, Fire and Rescue Department, and Hospital in case of any emergency.

👤 *Shri Mohan Krishnan P.V. (sio@kerala.nic.in)*

Token Tuhar Hath

Token Tuhar Haath App has been developed for systematic management of the process of issuing tokens to the registered farmers of Chhattisgarh for selling their paddy crops. With the help of this app, every farmer can get a token for the sale of paddy in the respective procurement centre on the date fixed by himself, all the information about the farmer's information, land, bank account, token and paddy purchase will be received through this app.

Using this app, the registered farmers can get the token in the respective committee procurement or procurement centres for the next seven days. However, online tokens can be obtained to the extent of 30 percent of each day's purchasing capacity in the concerned committee or procurement centre. The remaining 70% of the procurement capacity at the concerned centre will be available for offline tokens, so that farmers who feel inconvenienced in getting tokens through the app can get tokens from the Samiti module. This will reduce the rush to get tokens in the procurement centres and farmers will be able to get tokens simply through a click at the comfort of their home.

👤 *Shri Tej Narayan Singh (tnsingh@nic.in)*

Punjab Kirti Sahayak

Punjab Kirti Sahayak App is developed on the behest of Punjab Building and Other Construction Workers' Welfare Board (BOCW) The app aims to revolutionise the working mechanism of the board by helping in ensuring greater efficiency in the registration of construction workers as well as by offering them benefits under the various schemes run by the Board.

With the help of this app, any person engaged in any kind of construction work in the State of Punjab for minimum 90 days during the last 12 months can register himself or herself as a BOCW worker by paying a nominal registration fee. The app thus enables registered workers to apply for various state government welfare schemes, made for their upliftment such as Ex-Gratia Scheme, Stipend Scheme, BPSSBY Scheme, Funeral Scheme, Shagun Scheme, and Pension Scheme. To enhance the reach of the app, it is made available in both English and Punjabi.

The applicants may also apply for registration renewals. They can track the status of their applications and may also remove deficiencies in the required documents.

👤 *Shri Vivek Verma (vivek.verma@nic.in)*

FARMS

Farm Machinery Solutions (FARMS) is a mobile app developed to facilitate farmers across the country to hire services of Farm Machinery Banks, Custom Hiring Centres and Hi-tech Machine Hubs at reasonable prices. These machine banks, centres, and hubs are established under the various schemes of the Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) under the Ministry of Agriculture & Farmers Welfare (MoA&FW).

With the help of this app, farmers can see the working condition of machinery with their rental prices, before making the decision. They can also contact the centres according to their requirements The app is especially beneficial for small and marginal farmers who are unable to afford expensive machinery. Additionally, it helps the individual farmers, willing to provide their machinery and equipment on rental basis to increase their income. It also provides a platform to sell and purchase old agricultural machinery.

As of now, the app is available in twelve languages and plans to add more in order to reach a much larger audience.

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Hon'ble Prime Minister dedicates 75 Digital Bank Units to Nation

Hon'ble Prime Minister, Shri Narendra Modi dedicated 75 Digital Banking Units (DBU) across 75 districts to the nation via NIC video conferencing. Hon'ble PM stated that the 75 Digital Banking Units (DBU) will further financial inclusion and enhance banking experience for citizens. He said that DBU is a big step in the direction of Ease of Living for the common citizens and informed that in such a banking setup, the government aims to provide maximum services with minimum infrastructure, and all of this will happen digitally without involving any paperwork. It will also simplify the banking procedure while also providing a robust and secure banking system.

As part of the Union budget speech for 2022-23, the Finance Minister announced setting up the 75 DBUs in 75 districts to commemorate our country's 75 years of independence. A DBU is a specialised fixed point business hub, set up by scheduled commercial banks, housing certain minimum digital infrastructure for delivering digital banking products and services as well as servicing existing financial products and services digitally in self-service mode at any time. The DBUs are being set up with the objective to ensure the benefits of digital banking reach every nook and corner of the country and will cover all the States and Union territories.

DBUs will enable those who do not have Information and Communications Technology (ICT) infrastructure to access banking services digitally and also assist those who are not tech savvy to adopt digital banking. Services being offered through DBU include banking facilities like opening of savings ac-

Hon'ble Prime Minister, Shri Narendra Modi launching 75 Digital Banking Units across the nation via NIC videoconferencing service

count, balance-check, print passbook, transfer of funds, investment in fixed deposits, loan applications, stop-payment instructions for cheques issued, application for credit / debit cards, view statement of account, pay taxes, pay bills, make nominations, etc. The DBUs will also facilitate onboarding to Government credit link schemes through the Jan Samarth portal and end-to-end digital processing of small ticket MSME / retail loans.

-Informatics News Desk, NIC-HQ

Hon'ble Union Minister of Power and New & Renewable Energy launches BioUrja and BioGas Portals

Shri R.K. Singh, Hon'ble Union Minister of Power and New & Renewable Energy, has launched the BioUrja and BioGas portals during an event at the National Bio Energy Programme at New Delhi. In his address, Hon'ble Minister stated the importance of Bioenergy for providing clean cooking through biogas, co-firing in thermal power plants by utilizing biomass pellets and briquettes and BioCNG for transport. He emphasized that the benefits of utilization of surplus biomass should reach the rural household by way of an additional source of income for farmers.

BioUrja portal has been developed as a single window platform to register and submit online applications for grants of Central Financial Assistance to Waste to Energy projects, Biomass Briquette / Pellet manufacturing plants and Biomass (non-bagasse) based cogeneration projects. BioGas portal facilitates beneficiaries with online proposals and approval for setting up of Biogas plants under the National Bioenergy Programme. Beneficiaries can check their eligibility for small / medium biogas plants installation and track the current status of inspection.

Hon'ble Union Minister of Power and New & Renewable Energy, Shri R. K. Singh, launching BioUrja and BioGas Portal at National Bio Energy Programme, New Delhi

During his keynote speech, Hon'ble Minister reiterated the need for Bio-energy promotion not only because of its energy potential but also the large socio-economic benefits associated with it.

-Informatics News Desk, NIC-HQ

Hon'ble Chief Minister of Odisha launches the SAACAR Portal

Hon'ble Chief Minister of Odisha, Shri Naveen Patnaik, inaugurated SAACAR (Single Window Application Atrocity Compensation Assistance & Relief) portal in a bid to provide end-to-end solution for processing SC / ST Atrocity Cases registered across the State. Launching the portal, the Hon'ble CM said that the portal will facilitate faster investigation and payment of compensation to the victims in SC-ST atrocity cases within a period of 21 days. He added that this portal will increase efficiency and avoid the delay caused by the existing manual system of enquiry and payment of compensation to the victims. He further stated that this new portal will bring a huge solace to the victims of atrocity belonging to SC / ST community.

Hon'ble Chief Minister Odisha, Shri Naveen Patnaik, launching SAACAR Portal through NIC VC services

-Hara Prasad Das, Odisha

Hon'ble Chief Minister Uttarakhand inaugurates ASHA Sangini Portal

Hon'ble Chief Minister of Uttarakhand, Shri Pushkar Singh Dhami inaugurated the ASHA (Accredited Social Health Activist) Sangini Portal in a function organised at Government Doon Medical College (GMDC), Dehradun. Speaking at the programme, he said that Uttarakhand is a State with harsh climatic conditions and the ASHA Sanginis are the backbone of the state health services. He expressed hope that the ASHA Sangini Portal would assist and empower all 12,018 ASHA Sanginis of the State. He said that the portal has been launched to ensure that the payment of the ASHA Sangini is made in time and it would also help the department to evaluate and monitor their work. He opined that the portal would help in effective and lucid transfer of services to the ASHA Sanginis.

Hon'ble CM said that the priority of the State government is to ensure that the quality health services are available to the people residing in the remote and mountainous locations. He said that tabs have been provided to 6000 ASHA Sanginis and remaining Sanginis would be handed over the tabs soon. He informed that ASHA Samwad programmes would be organised in every

Hon'ble Chief Minister of Uttarakhand, Shri Pushkar Singh Dhami launching ASHA Sangini Portal at Government Doon Medical College, Dehradun

block of the State. He said that the State Health department has taken ten targets in the health sector which would be completed before the year 2025.

-A.K. Dadhichi, Uttarakhand

Mission Basundhara 2.0 unveiled by the Hon'ble Chief Minister of Assam

Hon'ble Chief Minister of Assam, Shri Himanta Biswa Sarma, announced Mission Basundhara 2.0 for the resolution of land issues of indigenous people of the State at an official ceremony held at the Srimanta Sankardev Kalakshetra Auditorium in Guwahati.

While elaborating on the definition of indigenous, the Hon'ble Chief Minister said that the government would be following the definition given in the Forest Rights Act. Under Mission Basundhara 2.0, land claims will be settled based on self-certification, which will state that the claimant has been residing on the land for the last three generations. Whenever there is any doubt, the district administration will conduct an inquiry against the claimant.

The services provided under Mission Basundhara 2.0 are the settlement of government khas and ceiling surplus land; conferring ownership rights to occupancy tenants; settlement of transferred annual patta land; settlement of VGR / PGR land; settlement of land for indigenous special cultivators (tea, coffee, rubber etc.); settlement of hereditary land of tribal communities, among others.

Hon'ble Chief Minister of Assam, Dr. Himanta Biswa Sarma, launching Mission Basundhara 2.0 in Guwahati

-Kavita Barkakoty, Assam

Hon'ble Chief Minister Arunachal Pradesh launches eILP Portal

Hon'ble Chief Minister of Arunachal Pradesh, Shri Pema Khandu, has launched eILP portal for the issuance of e-Inner Line Permit (eILP) in august presence of Shri Wangki Lowang, Hon'ble Minister of IT and Shri Nakap Nalo, Hon'ble Minister of Tourism for the state of Arunachal during at a state level event.

The portal will facilitate a faster, more convenient, and smoother entry into the state. It will ease the process of obtaining Inner Line Permit (ILP) for tourists by reducing the waiting period and by quantifying the application approval process.

The tourist can generate a QR Code-based ILP by submitting an official ID Card viz, Aadhaar, Voter ID Card, Passport. This QR Code based ILP can be verified by police personnel at check gates using specially designed mobile based applications, thus facilitating faster movement of tourists.

-Debasish Nath, Arunachal Pradesh

Hon'ble Chief Minister of Arunachal Pradesh, Shri Pema Khandu launching eILP Portal for visiting Restricted and Protected Areas in the State

Govt. of Manipur rolls out Manipur State Professional Tax Application

The Government of Manipur rolled out Manipur State Professional Tax Application at launch of State-wide Professional Tax Enrolment Drive. The application was officially launched by the Hon'ble Chief Minister of Manipur, Shri N. Biren Singh. It facilitates the taxpayers with online enrolment for paying taxes and can be accessed at https://professionaltax. mn.gov.in.

Manipur State Professional Tax is derived from Article 276 of the Constitution of India which empowers the State Government of Manipur to levy professional tax on professions, trades, callings and employment with a maximum cap of Rs. 2500 annually.

Hon'ble CM stated the application will help in improving the ease of doing business alongside tax administration and compliance. He appreciated the NIC officials for their coordination and hard work to come up with this application in a short period of time.

Hon'ble Chief Minister of Manipur, Shri N. Biren Singh launching Manipur State Professional Tax Application during state-wide tax enrolment drive

-Informatics News Desk, NIC-HQ

Hon'ble Chief Minister Punjab launches Khangi Taqseem Portal

In an effort to facilitate citizens by digitalising the functioning of the Revenue Department, Hon'ble Chief Minister Bhagwant Mann dedicated an online service to streamline the 'Khangi Taqseem' enrolment process. Launching the service, the Hon'ble CM said citizens now can submit their 'Khangi Taqseem' application with a single click. This will quantify the land demarcation process and ensure ease of buying and selling land. This will also make it convenient to get compensation for crop damage and to obtain a copy of zamabandi.

Applicants only need to submit basic details such as their name, father / husband name, name of the village, sub-tehsil / tehsil, district, khata and khewat number alongside a memorandum of proposed partition and field map depicting portioned parcels of land duly signed by all shareholders. After being processed by the Circle Revenue Officer concerned, application will be sent to kanungo in-charge and then the patwari concerned. After verification, the patwari would call the parties for official formalities and initiate the mutation proceedings. The application can be accessed at https://eservices.punjab.gov.in.

Hon'ble Chief Minister of Punjab, Shri Bhagwant Mann launching dedicated service portal to streamline Khangi Taqseem in the state

-Parminder Kaur, Punjab

Hon'ble Minister for Industries Kerala launches KOMPAS Portal

Hon'ble Minister for Industries, Kerala, Shri P. Rajeev has launched Kerala Online Mining Permit Awarding Services (KOMPAS) portal to ensure citizen-centric service delivery pertaining to mines and minerals in the State.

During the event, the Hon'ble Minister said that there is a need to bring better systems to implement mining activities with less environmental impact in Kerala too and suggested that KOMPAS will ensure transparency and efficiency in these activities. He stated that files should not be left pending and necessary action should be taken within five days of receipt of applications. In future, the system will be in place where the respective local bodies themselves can give permission to change the soil for the construction of non-luxury buildings.

KOMPAS portal includes four modules: 1. Quarrying permit- Short term permit (up to 1 ha area and up to one year duration); 2. Quarrying lease-Long term permit (up to 12 years); 3. CRPS Permit - Short term permit (up to 0.5 ha area and up to one year duration) and 4. application for quarrying permit for normal soil through KSWIFT-KOMPAS integrated software. The

Hon'ble Minister for Industries, Kerala, Shri P. Rajeev launching KOMPAS Portal in a state-level programme at Thiruvananthapuram

portal can be accessed at https://www.portal.dmg.kerala.gov.in/.

-Susy M., Kerala

Chief Secretary Odisha launches eOffice for CMC, OHPC and SJSU

Chief Secretary Odisha, Shri Suresh Chandra Mahapatra, officially rolled out eOffice for Cuttack Municipal Corporation (CMC), Odisha Hydro Power Corporation (OHPC) and Shree Jagannath Sanskrit University (SJSU).

Launching the systems, CS Odisha stated that eOffice has made the Governance present and future ready. It has made the conduct of Government business more quick, accurate, and responsive. He further added that carrying bundles of files on veranda of the offices, pending of the files for months together, missing the files, and making mischief with files are now stories of the past, eOffice has infused the much-needed transparency in the system.

CS Odisha enumerated the benefits of Office automation and asked CMGI and NIC to work out a definite time frame for application of eOffice in all the offices that are not included in Odisha Secretariat Workflow Automation System (OSWAS) network.

Chief Secretary Odisha launching eOffice for CMC, OHPC and SJSU at State Lokseba Bhawan, Bhubaneshwar

-Hara Prasad Das, Odisha

Tamil Nadu Police rolls out TNPeSR System

In an effort to bring the Tamil Nadu Police System up to date, the Tamil Nadu Police Department has begun officially rolling out the TNPeSR (Tamil Nadu Police Electronics Service Register) System throughout the state.

TNPeSR is going to provide an accurate view of the manpower, service particulars, deputation details, and any other related information. It features multiple dashboards that facilitate improved decision-making and gives upper management the ability to acquire, develop, manage, and motivate the commitment of key resources working within the organisation.

The TNPeSR service was launched by Dr. C. Sylendra Babu, I.P.S., who is the Director General of Police for the state of Tamil Nadu. He praised the efforts made by NIC Tamil Nadu.

Dr. C. Sylendra Babu, DGP, Tamil Nadu Police inaugrating TNPeSR System

-Beena C., Tamil Nadu

Secretary MoRD launches revamped eGramSwaraj Portal

Shri Shailesh Kumar Singh, Secretary, Ministry of Rural Development (MoRD) launched revamped eGramSwaraj Portal for thematic planning by the Panchayats, for the 15th Finance Commission Grants utilization and convergence among various Government Departments during two-day workshop on People's Plan Campaign 2022, New Delhi organised by Government of India.

The Secretary also launched Integrated Dashboard for monitoring the various schemes of Ministry of Panchayati Raj (MoPR), MoRD, and Department of Land Reforms (DoLR), Government of India. The dashboard has been developed by NIC using its Tejas-VI tool. The dashboard can be accessed at https://egramswaraj.gov.in/mprDashboard.do.

eGramSwaraj Portal has strengthened digitisation in Panchayats. It has simplified work-based accounting application and was developed as part of Panchayat Enterprise Suite (PES) under e-Panchayat Mission Mode Project (MMP). It has various modules for planning, reporting and accounting and captures day-to-day activities including digital payments.

It aims to bring in better transparency and strengthen the eGovernance in Panchayati Raj Institutions (PRIs) across the country. There is a seamless integration between eGramSwaraj Portal and Local Government Directory (LGD) through Unique Codes allocated to each PRI which allows interoperability with other PES.

Secretary, Ministry of Rural Development launching revamped eGramSwaraj Portal during two-day workshop on People's Plan Campaign 2022, New Delhi

Recently, total transaction value processed through eGramSwaraj PFMS Interface (eGSPI) crossed Rs. 1 lakh crore, which is a significant achievement that has enabled a digital revolution at the grassroots level.

-Informatics News Desk, NIC-HQ

India climbs up 6 Places in Network Readiness Index 2022

According to the newly issued Network Readiness Index 2022 (NRI 2022) study, India has climbed up six places and is currently ranked 61st in the world. In its latest iteration of 2022, the NRI Report maps the network-based readiness landscape of 131 economies based on their performances in four different pillars: Technology, People, Governance, and Impact covering a total of 58 variables. The NRI report has been prepared by the Portulans Institute, an independent, non-profit, nonpartisan research and educational institute based in Washington DC, USA.

India has not only improved its ranking, but also its score, which has increased from 49.74 in 2021 to 51.19 in 2022. It is worth noting that India leads in a number of indicators. The report states that India secured 1st rank in "AI talent concentration," 2nd rank in "Mobile broadband internet traffic within the country" as well as "International Internet bandwidth," 3rd rank in "Annual investment in telecommunication services" alongside "Domestic market size," 4th rank in "ICT Services exports," 5th rank in "FTTH / Building Internet subscriptions," and "AI scientific publications."

According to the NRI-2022 report, India has greater network readiness than would be expected given its income level. India is ranked third among 36 lower-middle-income countries, trailing only Ukraine (50) and Indonesia (59). In all pillars and sub-pillars, India outperforms the income group average.

In terms of Global Rankings, USA has overtaken the 1st spot from the Netherlands (4th) as the most network-ready society. Other top five countries in the list are Singapore (2nd), Sweden (3rd), and Switzerland (5th).

Source- *https://pib.gov.in/*

Singapore automates Sample Collection and Screening System for Prisons

The Singapore Prison Service (SPS) in collaboration with the Home Team Science and Technology Agency (HTX), has created Prison Automated Screening System (PASS), an automated toilet that uses robotics, sensors, and deep learning to collect urine samples and screen them for illicit drugs.

PASS is an attempt to automate the urine procurement and screening process in a fully unsupervised and hygienic manner. The technology is currently being tested as a proof-of-concept until February 2024, with four testing units deployed at various centres across the Southeast Asian City-State.

At the beginning of the screening procedure, supervisees are automatically registered using biometrics technology. This allows the system to be completely contactless and unsupervised. Other features include an automatic door, a urinal shutter, and sensors that ensure that the user provides the urine sample at the right time with all steps conducted in the right order. The supervisee waits in a cubicle for the test result, which takes about five minutes.

An instructional video is also played inside the cubicle, which guides users through the entire process. Behind the cubicle is a specially designed robotic gantry system that handles the test kits. Technology safeguards and deep learning aid in detecting and preventing tampering, ensuring the testing is accurate, consistent, and free from contamination.

Singaporean authorities plan to deploy PASS nationwide. They say this would help them to make Singapore a drug-free state and help their citizens to live a more fulfilling life, free from drugs.

Source- *https://www.htx.gov.sg*

NIC shines at 25th National Awards for eGovernance

NIC and its teams working across various projects and technologies throughout the country have won multiple awards under different categories at the 25th National Awards on eGovernance (NAeG).

NAeGs are presented every year by the Department of Administrative Reforms and Public Grievances (DARPG) and the Ministry of Electronics and Information Technology (MeitY) to recognize excellence in implementation of eGovernance initiatives across the country.

This year, the award ceremony was held during the National Conference on eGovernance, Katra, Jammu & Kashmir, on 26th November 2022. The theme for this year's award was "Bringing Citizens, Industry and Government Closer" with an emphasis on technologies that will enhance government services and make India a digitally empowered society and knowledge economy.

1 Gang Canal Regulation Computerization System has received the Gold Award under the Excellence in District Level Initiative in eGovernance (Other States) category.

Gang Canal Regulation Computerization System is overseen by the NIC Sri Ganganagar District Centre team, led by Shri Ashwanee Kumar Paliwal (Scientist-C) and Shri Parmajeet Singh (Scientist-B).

2 e-Panchayat mission mode project has won the prestigious Gold award under the "Excellence in Government Process Re-engineering for Digital Transformation" category.

e-Panchayat project is overseen by Panchayati Raj Informatics team at NIC Headquarters, New Delhi. The team is led by Shri Pawan Kumar Joshi (Dy. Director General) and Shri Sunil Jain (Sr. Technical Director). Other key members include Shri Suresh Prasad Nautiyal (Sr. Technical Director), Ms. Padala Lakshmi Rama (Sr. Technical Director), Shri Adesh Chand Gupta (Sr. Technical Director), Shri Sanjay Kumar Joshi (Technical Director) and Shri Sreejith N. P. (Technical Director).

3 eSuvidha for District Ramban has received the Silver Award under the Excellence in District Level Initiative in eGovernance (Other States) category.

e-Suvidha for Ramban developed and maintained by NIC Jammu & Kashmir UT Centre in collaboration with NIC Ramban District Centre. NIC Ramban District Centre is led by Shri Prashant Kumar, Scientist-B, Ramban.

Pehchan wins Digital Transformation Award 2022

Pehchan, the Rajasthan Civil Registration System, has won the Digital Transformation (DX) 2022 Awards in the category of Innovative Best Practices for Social Inclusion and Strengthening Civil Registration and Vital Statistics (CRVS) Using Mobile and Web technologies. It is a Civil Registration System which quantifies Birth, Death and Marriage Registration in Rajasthan.

Developed and maintained by NIC Rajasthan, the system is used by approximately 12500 Registrars and Sub-Registrars, as well as 1000 private hospitals, for registration and handles approximately 10000 registrations per day. The portal has also been integrated with Bhamashah, Health Department, and Election Commission to provide comprehensive services.

Digital Transformation Awards were instituted by CII Centre for Digital Transformation to recognise the innovative, resilient and sustainable strategies for introduction or adoption of digital technologies and serve as a benchmark for other industries in their journey towards Digital Transformation.

NIC Kerala emerges big at Kerala State eGovernance Awards 2022

NIC Kerala State Centre has emerged as a big winner at Kerala State eGovernance Awards 2022. It has received the prestigious award under eCitizen Service Delivery category for its (1) Ksheera Sree and (2) KOMPAS (Kerala Online Mining Permit Awarding Services) applications. The awards were presented by the Hon'ble Chief Minister of Kerala, Shri Pinarayi Vijayan, in presence of the Hon'ble Minister of Education,

Shri V. Sivankutty at the Tagore Theater in Thiruvananthapuram.

Ksheera Sree is a unified web application, which automates G2C, G2E, G2G services meant for development of the dairy sector in the state. It provides end-to-end solution to Dairy Cooperative Societies, Dairy Farmers, Dairy Development Department, and other known stakeholders across the state.

Similarly, KOMPAS is an integrated application developed for bringing efficiency and transparency to the G2C services provided by the Department of Mining and Geology in the state. KOMPAS also acts as an authoritative source of information pertaining to state policies, rules and regulations regarding minerals and mining.