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Editorial

rom a small humble project initiated by the Department of Electronics in the 1970s to its evolution to become the digital think tank for the Government, NIC has traversed a long, tedious, but fruitful path. It is currently embedded in Indian geography, encompassing all states, union territories, and districts and led the digitization movement in the country from the forefront.

With the launch of the Digital India initiative, the digitization movement led by NIC has found a new impetus. Over the past decade, digital govt. solutions designed and developed by NIC, spanning such areas as big-data-driven lending and insurance in the agriculture to digital geo-informatics solutions that map the most efficient routes and monitor cargo movements on the country's highways, have reshaped government-citizen interactions in every possible way. Moreover, these digital govt. solutions have led to steady democratisation of services and ensured greater transparency and efficiency. The benefits are not just limited to economics but have encompassed social and political spheres with a proven record of improving quality of life.

Continuing the tradition of excellence, we are happy to present you an array of articles celebrating the impact made by NIC to the lives of common citizens. We have covered the success stories of digitization from the vibrant state of Gujarat alongside three award-winning districts viz. Chikkaballapur of Andhra Pradesh, Kohima of Nagaland and Amritsar of Punjab. We have also covered two citizen-centric digital solutions developed by NIC iRAD, Invest Punjab (Business First) and PM CARES for Children under eGov Products and Services. In Appscape, we have covered a constellation of mobile apps - Digital Sansad, mParivahan, Ashwin Bihar, OxyCare, Vehicle Movement Tracking System, eKrishi Rojgar, and National Scholarship Portal – which were recently designed and developed by NIC to meet the growing demands of citizens across the country. Then, our regular sections such as In The News, International eGov and Accolades bring you some interesting news.

Further, this issue is special to us, as it features a message from our Director General, **Shri Rajesh Gera**, discussing the future roadmap for NIC and its ever-expanding role as the facilitator of technology for bridging the digital gap in society.

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

Happy reading, and please take care, stay healthy and safe.

-Editor





Rajesh GeraDirector General

e are standing at the verge of a remarkable change in modern history. Since the launch of the Digital India program, the term "digital" has entered our daily lexicon. From the way we communicate to the way we seek healthcare to the way we look at our finances, digital has touched every aspect of our lives.

NIC, being the primary stakeholder of the Digital India program, is also at the crossroads of this change. NIC is the single organisation that consults and interacts with the different tiers of government throughout India, from central government to state government to district administration and finally, to panchayat bodies. It is also the only organisation that works across the three organs of the state, namely executive, judiciary, and legislature. Moreover, it is the only organisation, which works across all socioeconomic sectors.

All of this puts us, the team NIC, into a very unique position. From where, we can leverage our position to transform the digital profile of the country. We can use our digital products and solutions to quantify the needs of common citizens and make their life a bit easier.



















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Gujarat State

Empowering citizens with digital eGovernance

Edited by A.K. DADHICHI

n the modern era of Science, Technology and Innovation, effective use of ICT is imperative to meet the ever-growing expectations of citizens and businesses. From mere automation, eGovernance is continuously evolving to provide access, equity and empowerment to the masses. The State Government of Gujarat was early to identify the importance of ICT as an effective tool for Good Governance and has been a frontline State in the Country for implementation of eGovernance projects. For the same purpose, NIC Gujarat State Centre has been designated as the technology partner to the Gujarat Administration.



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NIC Gujarat is a technology partner and key advisor to the State and Central Government Departments in Gujarat. It has played an important role in setting up the key ICT infrastructure to bridge the gap between citizens and government, using technology as a conduit to achieve the Prime Minister's vision of Minimum Government with Maximum Governance. The services by NIC Gujarat include study of user requirements, identifying and prioritizing areas for digitisation, system design, development. implementation. training. technical support for hardware procurement, networking, LAN, WAN, Video Conferencing etc.

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Since its inception in 1988, NIC Gujarat State Centre has been designing, developing and implementing ICT solutions to deliver better citizen-centric services in the State across its 33 districts.

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ICT Initiatives in the State

Some of the major digital initiatives implemented in Gujarat are:

CM Dashboard

Gujarat CM Dashboard is a first of its kind system to access data from all the State eGovernance apps and provide the same for monitoring against pre-defined Key Performance Indicators (KPIs).

The CM Dashboard assists the Chief Minister Office (CMO) to drill down to various levels (viz. Zone, District, Taluka, and Gram Panchayat) in real time for red-flagged items and intervene in the administrative machinery with a simple voice call. As a result, the government will be more productive, efficient, and transparent.

The major key stakeholders in the Gujarat CM Dashboard, besides the CMO, are Secretaries to the Ministries, Heads of Departments, Collectors, District Development Officers, and Superintendents of Police.

The CM Dashboard consists of modules such as the Executive Dashboard, Sector Dashboard, District Dashboard, Corporation Dashboard, GIS



Fig. 1.1: Hon'ble PM Shri Narendra Modi launching Mukhyamantri Matrushakti Yojana during Gujarat Gaurav Abhiyan

Dashboard, Department Star Rating, PRAGATI-G (Project Monitoring), Aspirational Districts, CCU Dashboard, and Jan-Samvad (Feedback Mechanism).

The CM Dashboard helps in monitoring services and identifying areas of improvement, thereby, promoting transparency and accountability within the Government. Also, the whole system assists in enforcing digital apps in functional areas yet to be computerised.

Digital Gujarat

Digital Gujarat is a one-stop solution for 300 G2C services provided by various State Government Departments for the citizens. Some of the services are pre-matric and post-matric scholarships, certificates, permissions, permits, affidavits, PDS services, old age and widow pensions, subsidy on electric vehicle purchase, assistance in purchase of tablets etc.

▼ Fig. 1.2: Stakeholders of CM Dashboard

These services can be availed through Jan Seva Kendra in districts / talukas and through Digital Seva Setu in Gram Panchayats.

Digital Gujarat app is linked with PFMS for Direct Benefit Transfer (DBT) to eligible applicants, whose data is Aadhaar verified. The applicants also get regular notification through SMS, Sandes and email.

Mukhyamantri Matrushakti Yojana

(https://1000d.gujarat.gov.in)

Mukhyamantri Matrushakti Yojana (MMY) was launched by the Hon'ble Prime Minister Shri Narendra Modi in the august presence of Hon'ble Chief Minister of Gujarat, Shri Bhupendrabhai Patel during the "Gujarat Gaurav Abhiyan." In this scheme, the pregnant and lactating mothers every month will receive 2 kg of chickpeas, 1 kg of tur dal, and 1 kg of edible oil free of charge from nearby Anganwadi Centres. An app of same

name, MMY, is designed and developed by NIC to track nutrition provided to pregnant and lactating mothers for an initial 1,000 days along with their newborn child to improve the nutritional status of both mother and child. For this, it is integrated with the Health Management Information System for registration of beneficiaries and Supply Chain Management of Public Distribution System for the distribution of commodities.

iORA

Integrated Online Revenue Applications (iORA) is a common service delivery platform for all services provided by the Gujarat Revenue Department. Some of the major services provided via this portal are issuance of digital Record of Right (RoR), non-agriculture land conversion certificate, new to old tenure conversion certificate, COVID-19 ex-gratia assistance, land allotment certificate, inheritance / mutation certificate, RoR correction and farmer certificate

The citizens can get these services by applying and paying a nominal application fee. The system, then, randomly distributes the application to an officer from a pool of concerned officers, who need to dispose of the application within 72 hours or the system gets locked until the copy of the signed order is not uploaded online.

COVID-19 ex-Gratia App

It was launched as a part of the iORA portal. It enables the family members and legal heirs of COVID-19 victims to submit their application for the ex-gratia claim of Rs. 50,000. The application can be filed online by uploading the death certificate of the deceased and other documents prescribed by the Gujarat State Health Department. This app is also integrated with the Gujarat State Birth and Death Registration Portal (eOlakh) for authenticating the data of deceased persons.

Collector Portal

(https://collectorportal.gujarat.gov.in)

Collector Portal is an online web-based application to monitor collector office and other ground-level revenue office related activities. At the highest level, the end-user can generate and monitor 28 reports from various departments.

gARVI 2.0

(https://garvi.gujarat.gov.in)

gARVI 2.0 is an online property registration system which offers applicants to apply for online property registration by submitting PAN, Aadhaar, property documents, registration fees and stamp duty and get an appointment at the respective Sub-Registrar Office (SRO) for the document verification through a systemgenerated token, thus, simplifying the processes for providing evidence of titles, facilitating the secure transaction and preventing any unlawful disposal of land.

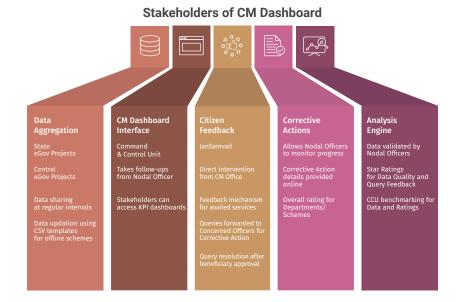




Fig. 1.3: Hon'ble CM Gujarat Shri Bhupendrabhai Patel launching Integrated Road Accident Database (iRAD) on Gujarat Foundation Day

The system enables the SRO to deliver the registered documents to the applicant on the same day. Moreover, the portal allows access to property-related information online in case of examining the legal authenticity of any property.

GJ-TPDS

(https://pds.gujarat.gov.in)

Gujarat Targeted Public Distribution System (GJ-TPDS) is an integrated web-based platform which has been implemented in all 33 districts of the State.

Through Ration Card Management System (RCMS), citizens can apply for online services such as issuance, updation, and deletion of ration cards and their members. It also has a provision to split the ration card, declaration of guardian member, and issuance of a duplicate ration card. It processes over 2 lakh applications every month. As of now, over 1.35 crore ration cards have been digitised through the system covering 6 crore (95%) of the state population. RCMS is integrated with Digilocker, Umang, PMJAY, eOlakh and Digital Gujarat for a better service delivery.

Similarly, on the supply chain side, the Bank Challan Module helps Fair Price Shop (FPS) owners to pay online their receipts.

They can also track movement of food items from 50 FCI godowns to 220 State godowns through Supply Chain Module. It also has a provision to track door-step-delivery to 17000 FPS with mobile based information delivery. (Refer Fig. 1.8)

Other citizen-centric solutions provided under GJ-TPDS are eFPS for ration sale automation, iLMS for ease of doing business, Farmer Procurement for state-wide produce procurement.

iKhedut

(https://ikhedut.gujarat.gov.in)

iKhedut is an integrated service portal catering to the farmers of the state. It helps farmers to avail over 250 welfare schemes under a single roof. It facilitates services like DBT, SMS notifications etc., ensuring full transparency in the process. As of now, the iKhedut portal has disbursed 183 million rupees to the eligible applicants.

Agriculture Input Dealer Licence System

(https://ikhedut.gujarat.gov.in/eParwana/)

Recently, iKhedut services have been extended by adding the Agriculture Input Dealer Licence System module to provide agriculture dealer licences in the state.

OCM Dashboard has proved to be a the delivery of services and receiving

feedback from the people.

It has been effective in bringing a paradigm shift in governance by creating performance-based and state. Be that as it may, the Dashboard has become the backbone of Gujarat's

appreciation from all quarters but has also generated interest from other state

I sincerely thank NIC for handholding

Gujarat in this journey and wish all the best for



Smt. Avantika Singh Aulakh, IAS Secretary to Chief Minister, Gujarat

It takes care of issuing fertiliser, pesticide and seed licences for manufacturer, wholesale and retail dealers. The whole licensing process is automated and time-bound, thus, bringing transparency to the system. As of now, 19,000 licences have been issued by the system.

OIAS

(https://ojas.gujarat.gov.in)

OJAS (Online Job Application System) is a comprehensive web solution developed for aspirants to apply online for the various





▼ Fig. 1.5: Launch of gARVI 2.0 by Shri Jenu Devan, IAS-IGRS, Gujarat





▲ Fig. 1.6: My Ration mobile app

government job notifications by submitting personal, education, experience, training, photo / signature, preferences and other details.

OJAS ensures a speedy and transparent recruitment process to fill the vacancies advertised by various state government ministries and departments.

Since 2009, OJAS platform has been used by over 105 state departments for their recruitment processes.

As of now, over 2100 state recruitment exams have already been conducted using the portal. It has also been replicated in the High Court of Gujarat and the Union Territory of Daman & Diu and Dadra & Nagar Haveli.

A candidate has to do the One Time Registration (OTR) for online submission of the application. The same profile can be used for applying to further examinations.

OJAS is integrated with Digilocker for document management and Credit / Debit / UPI based payment gateways for the payment of examination fees.

OJAS sends alerts through SMS and Email for each stage in the recruitment process. The applicants can also access the platform through their Android smartphones.

On the application management side, the administrator can access modules for advertisements, applications, exams, interviews and document scrutiny with MIS reports. The administrator can also confirm the examination schedule, generate candidate roll numbers, allocate exam centres, plan interview / mains exam alongside various other exams related activities. The verification of short-listed candidates is done through the decision support system (iASS).

OJAS has hugely benefited both GPSC and students by drastically reducing legal issues, court cases and grievances of applicants.

Other Key Initiatives

SWAGAT

(https://swagat.gujarat.gov.in)

SWAGAT, which means 'Welcome' in Guiarati. Hindi and other local languages, is a citizen-centric application designed for effective, transparent and speedy redressal of citizen grievances at various governance levels in the State.

The app helps the administration to solve public grievances at the state, district, taluka and village level. At the highest level, the platform is monitored by the Chief Minister's Office for ensuring the time bound redressal by the local administration.

XLN

Fig. 1.7: GJ-TPDS: (A) schema of Food Supply Chain Management and Public Distribution System along

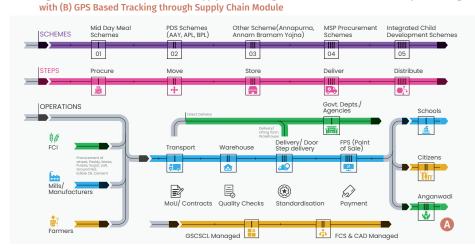
(https://xln.gujarat.gov.in/)

eXtended Licensing Node (XLN) is a licensing system developed for Gujarat Food & Drugs Control Administration to offer online drug licensing services in the state.

the forefront of innovation in governance. Hence, when it comes to in eGovernance, NIC has a lion's share of contribution in this. The quality delivered by NIC has led the state to faster, more efficient, and more secure can apply for mutation of their land, from anywhere in the world, using iORA, hosted and maintained by NIC. Using and approved copy of their important revenue and record of rights like VF of Registration (IGR) Office, has made the process of registration faster, more cure, and more transparent, Similarly, monitor the progress of the collector of each district, state-wide. A module on iORA by NIC, for the citizens to apply government.These apps have enabled the state and its administration to weed out time-consuming and archaic processes, replacing them with a new generation, swift, and state-of-the-art platforms. We are sure that NIC will be central to Gujarat's eGovernance vision the best of it.

Kamal Davani, IAS

Addl. Chief Secretary, Revenue Department Gujarat



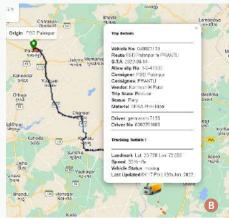




Fig. 1.8: Hon'ble CM Gujarat Shri Bhupendrabhai Patel awarding appointment orders to Anganwadi Worker during "Azadi ka Amrit Mahotsav" event at Vadodara

GPCB-VLTS

(https://gpcbxgn.gujarat.gov.in/gpcb_vlts)

GPCB-VLTS is a vehicle location tracking system developed for Gujarat Pollution Control Board (GPCB) to track and monitor the movement of vehicles carrying hazardous waste from industrial sites to waste management facilities for safe disposal. It sends various alerts to the concerned stakeholders in case the vehicle deviates from predefined routes.

iRCMS

Integrated Revenue Case Management System (iRCMS) is an integrated solution to manage revenue cases throughout the State. Currently, 568 state revenue offices are using iRCMS for timely disposal of revenue cases. As of now, over 14 lakh cases have been filed and 5.5 lakh orders have been uploaded on the iRCMS system.

iRCMS is developed on an open source platform and supports local languages apart from English. The system is integrated with other government. apps using secured APIs, which helps in capturing non-disputed land details of other state government departments, thus, it also acts as a land bank. A user (citizen) can also avail details of the case with order copy and daily case board through the portal.

The iRCMS portal also has a provision of SMS intimation to stakeholders on important case events.

DMLA

(https://dmla.gujarat.gov.in)

Drugs Manufacturing Licensing Application (DMLA) portal monitors Drugs Manufacturing Licences (Ayurvedic / Allopathic) issued in the state. DMLA offers Government to Business (G2B)

first of its kind in hazardous waste Tracking System (VLTS) on eXtended Green Node (XGN) developed by NIC and launched by Hon'ble Chief Minister of Gujarat, Shri Bhupendrabhai Patel on World Environment Day, 5th June 2022;

the route of hazardous waste carrying vehicles and ensures that such vehicle ply on a pre-decided route for the disposal and transportation of the waste movement in a very transparent manner.



R.B. Barad, IAS Chairman, Gujarat Pollution Control Board

and Government to Government (G2G) services such as issuance, renewal, and amendments of licences / certificates with payment of a nominal service fee.

Fig. 1.9: Pillars of iILMS

Advocate Legal Government **Officers Departments Departments** General GRLD Notification Data Access Open API Case Ownership Business List • Pre eFiling (GP/ Case Calendar Document Xchange Integration with Sandes DGP) Document Xchange Draft Preparation • Filing at Court Court Proceedings Comply Order Data Xchange Case Allocation to Law Officers Legal Opinion Legal Opinion Administrative • Alerts / Email • Alerts / Email Dashboards Disposal Dashboard Record Room +Quasi-+Panel GP / DGP **AG Office** Government **Advocates**



Fig. 1.10: Shri P.K. Singh, SIO Gujarat, receiving memento from Shri Rushikesh Patel, Hon'ble Health Minister Gujarat at the launch of AyuDMLA

AyuDMLA

(https://ayudmla.gujarat.gov.in/)

Ayurvedic Drug Manufacturing Licensing Application (AyuDMLA) is designed to take off load from DMLA portal.

AyuDMLA issues licences / certificates related to Ayurvedic drugs manufacturing, highlighting the growth in Ayurvedic treatment across the state.

iILMS

Integrated Institutional Litigant Management System (iILMS) app has been designed to make speedy and transparent communication between various State Government Departments and Law Officers.

The app is integrated with Sandes and Janparichay for viewing the case status and litigation details in the courts. It also provides a multi-level dashboard for officials and intimates the stakeholders in various stages of the case through SMS and email.

Krishi Sahay Package

(https://www.digitalgujarat.gov.in/ksp/agriapp)

Krishi Sahay Package app facilitates farmers in applying for financial assistance against crop loss in case of natural disasters.

The farmer can submit their application through the nearby eGram Kendras. The app is integrated with PFMS for DBT of farmer payments.

Anganwadi Workers / Helpers Recruitment

(https://e-hrms.gujarat.gov.in)

Under eHRMS, an end-to-end recruitment solution has been developed for the recruitment and appointment of Anganwadi Workers (AWWs) and Helpers (AWHs) across the state. As of now, it has processed 111,680 applications culminating in the recruitment of 12,600 Anganwadi workers and helpers.

DBT Honorarium to Anganwadi Workers / Helpers

DBT Honorarium is a centralised reimbursement system that is designed to reimburse 55 crore rupees every month to over 1 lakh Anganwadi workers and helpers. The system is integrated with the attendance system and PFMS for DBT payment.

eOlakh

(https://eolakh.gujarat.gov.in)

eOlakh is a portal designed for the issuance of birth / death certificates across the state. It has been implemented across 14000 registration units in the state. It gives the real time picture of events to state authorities. As of now, over 74 lakh birth and 34 lakh death events have been registered through the portal.

BetiVadhaao

(https://betivadhaao.gujarat.gov.in)

BetiVadhaao is a web-based app to fill various forms under Pre-Conception and Pre-Natal Diagnostic Techniques (PC & PNDT) Act, 1994 to get sonography clinics licence in the state.

The PC & PNDT Act, 1994 was enacted to prohibit prenatal sex determination across the state.

CSIS - Gujarat

(https://csis.gujarat.gov.in, https://e-milkat. gujarat.gov.in, https://srs.gujarat.gov.in)

CSIS-Gujarat helps to digitise, maintain and monitor urban land records with the highest level of transparency.

Central Projects

NIC Gujarat Centre, in addition to being a technology partner to the State Government, also works on the implementation of several ICT projects initiated by the Central Government. Some of these projects are National Knowledge

The Ayurvedic Drugs Manufacturing System (AyuDMLA) is a remarkable ICT solution for Food & Drugs Control various services such as obtaining fresh licences, renewal of licences, amendments in licences and issuance of various types of certificates online to the Ayurvedic Drugs Manufacturers of the state. I was delighted to know that the NIC Gujarat and FDCA Gujarat teams have done tremendous work to develop

Dr. H.G. Koshia Commissioner, FDCA, Gujarat

Network (NKN), NICNET, Web / Cloud Hosting Services, Cyber Security Services, Video Conference Services, eTransport, eCounselling, iRAD and eNivrutti.

Accolades

- SKOCH Gold Award 2021 for Gujarat CM Dashboard
- SKOCH Gold Award 2021 for SSJSY-III
- SKOCH Silver Award 2021 for iASS Integrated Application Scrutiny System for GPSC
- CSI SGI 2021 Award of Appreciation for iORA

Way Forward

NIC Gujarat is committed to achieve the objective of Digital India to empower its citizens through delivery of eServices by adopting the state of the art technology and emerging ICT technology. Focusing on the capacity building in the human resources on the latest technology including Open Source, Microservices, Block Chain, Cyber Security and Mobile App first approach for and implementing the innovative idea in the new eGovernace Solution.

State Informatics Officer

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IC Chikkaballapur was established in 2007 to serve the ICT needs of the newly formed Chikkaballapur district. The District Centre initially operated from a makeshift office in Government Grainage Building, Chadalapura, Chikkaballapur, but later shifted to Zilla Adalitha Bhawan in 2014. Since then, it has played a pivotal role in leading the eGovernance activities in the district.

ICT Initiatives in the District

As an integral part of the digital journey towards the Digital District mission, NIC Chikkballapur has played a vital role by providing training and technical support to various stakeholders in the following Central and State eGovernance projects, viz. eOffice, District Information System for Election (DISE), Smart Performance Appraisal Report Recording Online Window (SPARROW), Aadhaar Enabled Biometric Attendance System



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Vinay C.P. Scientist-C & DIO karckb@nic.in

The IT revolution in Chikkaballapur started by NIC with the development of various in-house software apps as per the requirements of the District Administration and providing handson training and technical support to the stakeholders with full efficiency. This enabled transparency in the service delivery. The District Centre has developed an end-toend web solution for the recently held world's largest health camp at Chikkaballapur adjudicated by the World Book of Records, London.

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(AEBAS), Jeevan Pramaan, National Database for Arms Licence Issuance System (NDAL-ALIS), Vahan & Sarathi, Immigration, Visa and Foreigners Registration and Tracking (IVFRT), eHospital, eCourts, eProsecution, Integrated Road Accidents Database (iRAD), NHM-Financial Account Management System (N-FAMS), Online Land Ownership Record Details in Rural Areas

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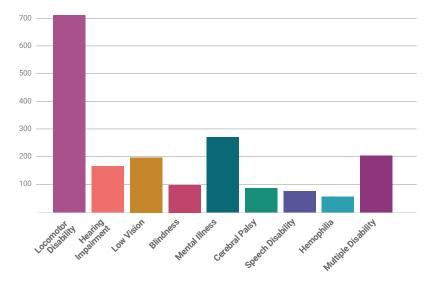
(eSwathu), Grama Panchayat Online Double Entry Account System (Panchatantra), Online Land Ownership Record Details in Urban Areas (eAasthi), District Sectoral Annual Budget Plan (eYojane), RTI Online, Online Performance Appraisal Report (ePAR), Guarantee of Services to Citizens (SAKALA), Integrated Public Grievance Redressal System (iPGRS), Crop Insurance Application (Samrakshane), Revenue Court Case Monitoring System (RCCMS), Bhagyalakshmi, Excise Common Integrated Police Application, Nadakacheri, Election Monitoring System (EMS), Public Distribution System (Ahara), Birth and Death Registration (eJanma).

Chikkaballapur Health Camp App

NIC Chikkaballapur has designed, developed and implemented an end-to-end web app for a two-day free health camp, organised by Dr. K. Sudhakar Foundation in association with the Department of Health and Family Welfare, Department of Medical Education, and Chikkaballapur District Administration on 14th and 15th May 2022. The app allowed ASHA and Anganwadi workers to capture the details of the beneficiaries for whom medical care was required. In total, 118933 beneficiaries were registered for the health camp online and with spot registration, the count exceeded two lakh. NIC had extended the complete IT solution including the support in terms of network, application development, rollout, handholding, hosting, and maintenance.

The District Administration categorised the data demographically in terms of ward, age, gender, and medical facility available. This helped the administration to provide the necessary support for the arrangement, procurement, and transportation of medical

District Informatics



▲ Fig. 2.1: Physically challenged patients registered on Chikkaballapur Health Camp App

supplies. The app also captured post-medical treatment details for individual patients to be referred for further treatment in higher healthcare institutions. (Refer Fig. 2.1 and Fig. 2.2)

Borewell Management System

Borewell Management System (BMS) is a web app developed for the Chikkaballapur Zilla Panchayat to collect the village-wise borewell details in the district.

The app allows end users, viz., Chief Executive Officer (Zilla Panchayat) and Executive Officer (Taluk Panchayat) to monitor borewell details, once entered by Panchayath Development Officer (PDO). It also has a provision to monitor the historical water yield and recharge structure available to each borewell, for which data is entered periodically. The concerned user can decide construction of the recharge structure or redigging the borewell based on the historical data available. The user can also monitor the details of dried borewell whether the casing is removed or not and whether the borewell is closed or not. PDOs need to enter the maintenance details of

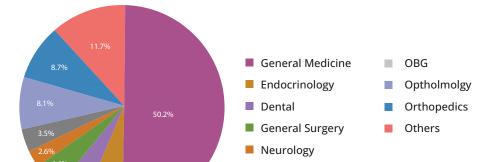
the borewell and the duration is taken to repair the borewell. From this report, the concerned user can cross-verify water supplied through water tankers.

COVID-19 Report Generation App

COVID-19 Report Generation App is a webbased app that fetches the COVID-19 test details from the health department and ports data into a local database. Whenever the applicant provides inputs such as Specimen Referral Form (SRF) ID and swab collection date, a negative report is generated if data is available in the database. This app only generates negative reports as it is not advised to disclose the identity of COVID-19 positive patients.

Swachh Gram App

This is a G2G app to effectively monitor the Swachh Gram Mission activities carried out at Gram Panchayats on a regular basis. It provides role-based access to PDO at Gram Panchayat, EO at Taluk Panchayat and CEO at Zilla Panchayat and can be accessed through both mobile and web.



▼ Fig. 2.2: Specialty-wise patients registered on Chikkaballapur Health Camp App

NIC Chikkaballapur District Centre has played a pivotal role in prevailing and leading the eGovernance with the use of ICT bringing transparency and efficiency to the process. Also, NIC has been rendering exemplary services

I congratulate the entire team of NIC, Chikkaballapur who have been working sustainable support and services to the District Administration during the pandemic last year, implementing and developing many web apps required for district administration and being the first like COVID Negative Report Generation and used Bharat VC for live streaming. I hope to carry forward

Smt. R. Latha, IAS **Deputy Commissioner & District Magistrate** Chikkaballapur

Samrudha MevuGovugala Nalivu App

Samrudha MevuGovugala Nalivu is a web-based app that helps the administration distribute subsidies to the farmers for growing fodder. It is complemented by an Android app that is used by the Village Accountant to approve the eligible beneficiaries based on farmer registration data in the Samrudha MevuGovugala Nalivu scheme.

The major stakeholders for this app are the Rural Development and Panchayat Raj Department, KOCHIMUL (Kolar-Chikkaballapur District Cooperative Milk Producers Union Limited), the Department of Animal Husbandry & Veterinary Services, and the Karnataka Revenue Department.

Fodder Stock and Distribution System

This is a workflow-based web app to ease the administrative process of fodder distribution. Farmers can register by using their ration cards and need to specify the number of cattle. Based on the cattle count, the District Administration decides the required quantity of the fodder which helps in the tender process. The successful



Fig. 2.3: Hon'ble Minister of Health and Family Welfare & Medical Education, Karnataka, Dr. K. Sudhakar inaugurating Swachh Gram App

bidder supplies the fodder to every taluk whenever the demand is raised by the Tahsildar. This will be updated as inventory at the taluk level. After receiving stock, he can find out the stock availability at each distribution centre and distribute the stock on a need basis. At the distribution centre, the person in-charge will distribute the fodder to farmers based on cattle count. It has a provision to restrict the fodder to the farmers based on the ration card number. The District Administrator can also monitor the progress through the district-level dashboard and generate reports required by the Animal Husbandry and Veterinary Services Department, Government of Karnataka.

Rain Water Harvesting Monitoring System

This is a mobile-based app to capture the Rain Water Harvesting (RWH) structures in each household of a selected ward by the volunteers in order to create an MIS. Houses are classified as Houses with RWH (Green) and Houses without RWH (Red). Once classified, the work to convert a Red House to a Green House is initiated by the City Municipal Council. A web-based dashboard integrated with Google Maps is also provided to concerned users to monitor the entire progress.

Staff Quarters Allotment System

This web app collects the applications for leasing the government staff quarters from government employees in the district. An applicant can apply for one location out of multiple locations based on his / her eligibility. The app, then, allots the quarters accordingly.

Poll Day Monitoring and Analysis (PDMA)

PDMA is a web app to collect Poll Day Bi-Hourly Statistics from the Sector Officers/ Presiding Officers of the Polling Stations and display poll trends to the District Administration Dashboard designed and integrated with the Google Charts API for the District Elections Officer. Chikkaballapur.

Other Key Initiatives

IoT Prototype for Borewell Monitoring

It is pertinent to utilise the existing resources and provide quality services to users. In one such situation, where borewells are prone to damage due to electricity contingency, Internet of Things (IoT) as a platform has helped to automate and manage the borewell. The IoTbased system informs the concerned officials about non-functional borewells and measures the quantity of water taken out each day through an SMS. The captured data is then uploaded to the cloud for maintaining the historical records. The project is headed by Smt. Gangamma M., Professor, Department of Computer Science, KVT Polytechnic, Chikkaballapur in association with NIC Chikkaballapur to resolve the problem.

Important Events Organised

 Provided technical support to conduct Azadi ka Amrut Mahotsav Program at Vidurashwatha Village, Gowribidanur Taluk, Chikkaballapur for

Fig. 2.4: Borewell management IOT prototype development team: Ms. Ashwini N.F.O., Prof. Gangamma M., Sai Sharan G.N., Naresh K., Syed Saqlain, Nayan D., Chandanachari S., Vinay C.P. (DIO NIC)



projecting the Hon'ble Prime Minister's Program live from Sabarmati Ashram, Gujarat in presence of Hon'ble Governor, Hon'ble Chief Minister and all other District level officials

- Provided Video Conferencing Services on Yoga Day Celebrations across the district
- Provided technical support to conduct Awas Par Samvad for the DUDC department and used Bharath VC to live cast the program across the District colleges

Accolades

SAKALA Services

Chikkaballapur is one of the top performing districts in the SAKALA Rankings, a point based system, which was introduced as the part of the SAKALA Services Act, 2011 and (Amendment) Act, 2014 by the Government of Karnataka to measure timely disposal of public issues and grievances. The Act enables people to be aware of their rights and coordinate their grievances between the various departments in due course. The disposal of grievances within the stipulated time frame prevents people from frequenting government offices and facilitates transparency.

As a technology partner, NIC Chikkaballapur has provided necessary technical support at both District and Zilla Panchayat. The efforts can be seen in results as Chikkaballapur has been at the top of the SAKALA Ranking for over fifty times. Since April 2012, the district has received a total of 23,23,160 receipts and disposed of 23,03,400 at an average of 99.15 percent.

During the decennial event of SAKALA Services Act, the Chikkaballapur District was felicitated by Shri B. C. Nagesh, Hon'ble Minister of Primary & Secondary Education and SAKALA, Government of Karnataka.

Way Forward

In order to realise the dream of 'Digital India', NIC Chikkaballapur is well prepared and continues to provide all the technical support to the district administration. It intends to develop apps using the latest web technologies and adopt international standards in order to provide better, improved, and efficient services. Furthermore, NIC Chikkaballapur is collaborating with the local institutions through the Industry Institute Partnership Cell for R&D activities to develop citizen-centric apps.

District Informatics Officer NIC Chikkaballapur #FA-08, First Floor, A-Wing Zilla Adalitha Bhawana, Patrenahalli Village Chikkaballapur, Karnataka - 562102 Email: karckb@nic.in, Phone: 08156-277010



IC Kohima District Centre was first established as a sub-office under NIC Nagaland State Centre in 1989. However, since then, the NIC Kohima District Centre has carved out its own niche and now functions as a separate entity to the NIC Nagaland State Centre.

In a way, the NIC Kohima District Centre twinned the story of Nagaland as a whole, which was once a part of Assam at the time of Independence of India and later became a fully fledged state in its own right on 1st December, 1963 with Kohima as its capital city.

The main indigenous inhabitants of Kohima were the Angami Nagas and the Rengma Nagas, but Kohima being the capital city of a state has acquired the status of being a cosmopolitan city with a cultural potpourri of all the people of Nagaland as well as the rest of India residing here.



J.G. Lorin Rengma Sr. Technical Director & DIO lorin@nic.in



Temsunaro Scientist-C & ADIO naro@nic.in

NIC Kohima District Centre has also established itself as a state of the art communication system provider to various departments stakeholders under District Administration for enabling the transparent Government to Government and Government to Citizen services by the District Administration. It is also actively engaged in developing various citizen services by using various emerging technologies in different socio-economic sectors.

As of now, 115,283 people call Kohima their home and are proud to be known as Kohimians.

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NIC Kohima District Centre has pioneered in designing, developing, and implementing Information Communication Technology (ICT)

programmes and projects in a scientific manner in order to serve the general public of Kohima District.

NIC Kohima District Centre is currently supporting the Kohima District Administration in the implementation of various flagship eGovernance programmes of both the Central and State Governments in the district. Some of them are iRAD (Integrated Road Accident Database), ServicePlus (Online Municipal Services), ILP (Inner Line Permit), NDAL-ALIS (National Database of Arms Licence Arms Licence Issuance System), CONFONET (Computerisation and Computer Networking of Consumer Commissions in Country), eCourts (for Kohima District), IDRN (India Disaster Resource Network) and TreasuryNet.

NIC Kohima District Centre has established itself as a state of the art communication system provider to various departments and stakeholders under the District Administration for enabling the transparent Government to Government and Government to Citizen services by the District Administration.

NIC Kohima District Centre is also actively engaged in developing various citizen services by using the various emerging technologies in different socio-economic sectors.

ICT Initiatives in the District

Jeevan Pramaan

NIC Kohima District has taken initiative on the issue of Jeevan Pramaan (Digital Life Certificates to Pensioners) in collaboration with the Zila Sainik Board of Kohima in order to capture the biometric details of the ex-servicemen from the



Fig. 3.1: Inauguration of Online Municipal Services at Kohima Municipal Council Office by Hon'ble Advisor for Urban Development & Municipal Affairs, Nagaland, Dr. Nicky Kire, in presence of state officials.

army and other allied defence services drawing their pension benefits. The exercise to capture the biometric details of the ex-servicemen has been carried out covering pensioners from the districts of Kohima, Phek and Zunheboto in Nagaland.

Fight Against COVID-19

NIC Kohima District Centre has played a pivotal role in providing ICT services in terms of Internet Connectivity, bulk email and SMS services, alongside Video Conferencing facilities to the District Administration and District Task Force 24 X 7 in the fight against the COVID-19 pandemic.

Most virtual meetings and discussions were facilitated through the NIC Video Conferencing facility and other Video Conferencing tools using NIC infrastructure to all the stakeholders in the fight against the ongoing pandemic.

The District Centre ensured the smooth functioning of web and mobile based applications and portals for capturing and displaying the data related to COVID pandemic.

The registration of authorised Sample Collection Centres and Sample Collectors for the Kohima district through Indian Council of Medical Research (ICMR) portal was handled by the NIC Kohima District Centre diligently and efficiently.

The Standard Operating Procedures (SoPs) of COVID-19 were translated into local languages

Angami, Rengma, and Nagamese in the form of Infographics and Pamphlets and distributed to the general public to create awareness for effective control of the spread of the virus.

IT Support towards Conduct of State Assembly / Lok Sabha Elections

NIC Kohima District Centre renders extensive support to the Election Commission and the District Administration towards the conduct of Vidhan Sabha and Lok Sabha Election in all the stages of the election processes. NIC plays an important role in the capacity building of all ICT enabled applications as a master trainer alongside handholding the user data on various web or mobile-based applications. Some of them are Polling Personnel Randomisation Software, Electronic Voting Machine Management Application, Booth Level Officer Management Application, Voter Helpline, eSuvidha, c-VIGIL, Service Voters Application, and Encore.

Online Municipal Services

Under the initiatives of the Ministry of Housing and Urban Development, Government of India, the District Centre took the role as program coordinator in collaboration with the Department of Municipal Affairs, Government of Nagaland, for developing citizen-centric services on ServicePlus Framework. (Refer Fig. 3.1)

IC District Centre, Kohima has N been playing a pivotal role in implementation of various ICT projects digital technology today, the presence of NIC in the district with its state of how and cooperation from the officers plays an indispensable role in enabling government businesses, leveraging uninterrupted facilities like internet, on 24/7 basis apart from many other services delivered through web/portal/mobile based applications. NIC extends Parliamentary Election in the district which is commendable. I hope the for the benefit of the citizens.

Gregory Thejawelie, IAS **Deputy Commissioner** Kohima

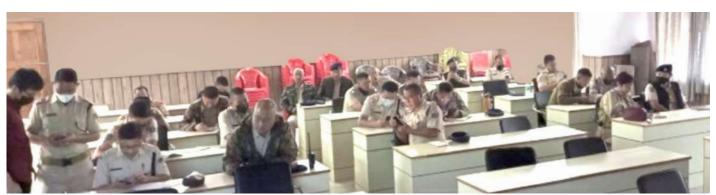
Under this framework two services for the Kohima Municipal Council were configured:

KMC Utility Booking Services

(https://serviceonline.gov.in/getServiceDesc.html?serviceId=24390002)

KMC Utility Booking Services module will allow online booking for utility services like cesspool, water tanker, Excavator, trucks and tipper trucks by a nominal fee online.

▼ Fig. 3.2: iRAD training to Police Officials in the Nagaland Police Headquarters, Kohima



• Public Grievance and Redressal Application

(https://serviceonline.gov.in/getServiceDesc.html?serviceId=24370001)

Through Public Grievance and Redressal Application, anyone can lodge complaints of any type within the KMC jurisdiction for redressal in the interest of the general public.

Integrated Road Accident Database (iRAD)

iRAD, an initiative of the Ministry of Road Transport & Highways, is being implemented in the district. The initial training has been given to the stakeholder departments, viz. the Police, Transport, Highways and Health Departments. (Refer Fig. 3.2)

iRad mobile app allows a person to capture accident details on the spot. This data will provide indicators for strengthening the Road Safety Act as well as its implementation at the ground level.

Other Key Initiatives

Since its inception, NIC Kohima District Centre has been providing necessary ICT support to the Kohima District Administration.

The District Centre has been engaged in undertaking capacity building training and computer awareness programs regularly to facilitate effective implementation of eGovernance projects / applications.

Under the District eGovernance project, two persons from each village were given basic computer training for a total of 96 villages by the District Centre.

The District Centre has also successfully implemented Central Government projects such as ILP, NDAL-ALIS, CONFONET, eCourt, IDRN, Integrated Road Accident Database, Online Municipal Services, and TreasuryNet. The Centre also facilitates Aadhaar Enrolment.

All network connectivity issues in the District Offices as well as the Nagaland Commissioner's office are supported through NICNET and monitored by the Kohima District Centre.

Inner Line Permit (ILP)

ILP is an official travel document issued by the State Government of Nagaland to allow inward travel of Indian citizens or non-citizens into a protected area for a limited period.

It is obligatory for a person from outside Nagaland to obtain a permit for entering into the protected areas. The document is an effort by the Nagaland government to regulate movement to certain areas located near the international border of India.

A person can apply for an ILP pass online by uploading mandatory documents and paying a nominal processing fee. The person can track his application status, payment status, and



▲ Fig. 3.3: Kohima District Website Homepage

download ILP online. The person also gets facility to re-upload the document in case of any error/ mistake.

NDAL-ALIS

Arms Licence online is a web-based application, which is developed to facilitate arms licence related services to the general public, where applicants can apply for Fresh arms licence and subsequent allied services for different categories like manufacturer, individual etc.

CONFONET

CONFONET (Computerisation and Computer Networking of Consumer Commissions in Country) project has been implemented in the backdrop of The Consumer Protection Act, 1986.

Under the provisions of the Act, quasi-judicial machinery, namely, Consumer Commissions at the district level and Consumer Dispute Redressal Commissions at the State and National Level were set up.

The NIC Kohima District Centre in its full capacity is providing support to Kohima District Consumer Commission with linkages to respective state and national commissions.

TreasuryNet

TreasuryNet (Treasury Computerisation Project) is a web based system which caters to the online transactions in treasuries as well as generates compiled accounts. It provides various reports & queries to support decision making in financial matters.

eCourts

NIC Kohima Centre also maintains eCourts Services for Kohima District Court. Through eCourt Services, a person can avail information related to Cases filed in the Kohima District Court. It is useful to Citizens, Litigants, Lawyers, Police, Government Agencies and other Institutional Litigants.

India Disaster Resource Network

India Disaster Resource Network (IDRN) is a web based platform, for managing the inventory of equipment, skilled human resources and critical supplies for emergency response. Primary focus of IDRN portal is to enable the decision makers to find answers on availability of equipment and human resources required to combat any emergency situation. This database will also enable them to assess the level of preparedness for specific disasters.

Kohima District Website

(https://kohima.nic.in)

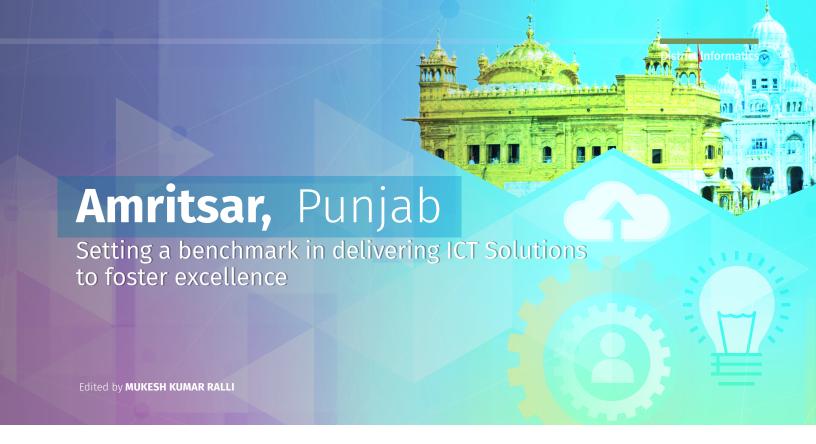
For all information on Kohima District, the district approved website has been designed and developed under Secure, Scalable and Sugamya Website as a Service (S3WaaS) platform. Regular updates are done as and when required and the website provides information on the history, demography, administrative set-up, tourism, public utilities, citizen services, quick links, helpline numbers and media gallery relating to the district. (Refer Fig. 3.3)

Way Forward

Bridging the digital gap, NIC Kohima District Centre endeavours to take forward ICT enabled services such as Government to Government, Government to Enterprise and most importantly Government to Citizen projects in collaboration with the District Administration and all stakeholders in the district.

District Informatics Officer

NIC Kohima Centre East Wing, 2nd Floor DC Office Building, Upper D Block Kohima, Nagaland - 797001 Email: lorin@nic.in, Phone: 0370-2292201



ince the inception of NIC Amritsar in 1988, it has played a leading role in the implementation of various ICT projects for State and Centre Government to leverage the eGovernance in the District which resulted in the better delivery of citizen services.

Some of the major ICT projects implemented by the NIC Amritsar are integrated Human Resource Management System (iHRMS), National Generic Document Registration System (NGDRS), eOffice, Amritsar District Administration Website, District Information System for Election (DISE), Punjab Poll Day Monitoring System (PPDMS), Vehicle Management System (VMS), Revenue Court Cases Management Punjab (RCMSPb), Aarogya Setu App, COVA App, Mission Fateh App, RT-PCR Testing App, COVID-19 portal, ePasses, Smart Performance Appraisal Report Recording Online Windows (SPARROW), Aadhar Enabled Biometric Attendance System (AEBAS), Jeevan Pramaan, National Animal

Ranjit S. Sandhu Technical Director & DIO ranjit.sandhu@nic.in



Meenakshi Davessar Scientist-C & ADIO meenakshi.davessar@nic.in

Home of the glorious Golden Temple, the iconic city of Amritsar, portrays the heroic character of Punjab. Taking the inspiration from the same, NIC Amritsar District Centre established in the year 1988 has implemented various eGovernance projects for State and Central Governments to leverage the eGovernance scenario in the District which resulted in better delivery of citizen services in the border areas. NIC has extended the leased line connectivity and implemented ICT solutions at Attari Rail and Road check post at the Indo-Pak border.

Disease Reporting System (NADRS), Vahan, Sarathi, Indian Citizenship Portal, Government Property Management System (GPMS), HortNET, National Social Assistance Programme (NSAP),

eScholarship, Mid-Dav Meal Monitoring System. Mother Child Tracking System (MCTS), Members of Parliament Local Area Development (MPLAD), AGMARKNET, NGO DARPAN, Immigration, Visa and Foreigner's Registration & Tracking (IVFRT), MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act), ePrison (Central Jail Amritsar), and Director General Foreign Trade (DGFT) Applications.

All these projects have been implemented in the district under the able guidance of the NIC Punjab State Centre and have helped departments to provide better service delivery, reduce pendency, enhance transparency, and accountability.

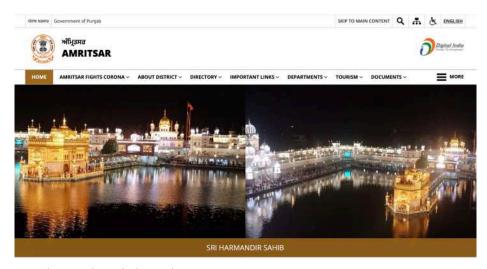
ICT Initiatives in the District

Amritsar District Website

Developed using the S3WaaS platform, it is enriched with a wide range of content related to Administrative Setup, Tourism, Culture, Health, Public Utilities, Accommodation, Education, Emergency Helpline, Recruitment, Tenders, COVID-19 and various other district events for dissemination of authentic information to the public. It should be noted that the Amritsar District Website is the first district website in India to be accessibility certified by STQC. (Refer Fig. 4.1)

iHRMS

iHRMS provides services related to Service Book, Posting, Promotion, Salary, Arrear Management, GPF, GIS, Leave Management, Income Tax Information, Annual Confidential Report, Annual Property Return, and various



▲ Fig. 4.1: Amritsar District Website Homepage

other features / reports for daily decision making by the departments. NIC Amritsar has successfully implemented iHRMS in all the State Government departments in the District by providing proper training to the Master Trainers.

NGDRS

NGDRS is designed to be used by subregistrars, citizens and other apex users from the Land Registration Department. It offers the facility to book appointments and pass information of registered deeds to the land record system for mutations. Since the inauguration, it has been successfully implemented by the District Centre in 13 SROs / ISROs.

eOffice

NIC Amritstar has successfully implemented the eOffice in the office of Deputy Commissioner alongside offices of SDMs, Tehsils, and Sub Tehsils, Bureau of Civil Aviation and Security, Central GST and several other departments in the district.

Elections

NIC Amritsar is always instrumental in

providing ICT solutions to the Administration during General, State, and Local body elections.

NIC officers are assigned multiple roles three months prior to the date of elections for ICT support. As a district-level master trainer, NIC Amritsar is responsible for rolling out ICT applications of NIC (DISE, DISE-Capsule, PPDMS) and ECI (ETPBS, ENCORE, SUVIDHA).

The District Centre is also responsible for the implementation of DISE-MP and DISE-NP for Municipal Corporation and Nagar Panchayat elections respectively.

In addition, the District Centre has implemented PPDMS for Pre Poll and Poll days activities.

RCMSPb

RCMSPb is a web-enabled revenue court management system to facilitate management and monitoring of cases pertaining to revenue courts.

It captures the details of properties under litigation from the land record database along with petitioners and respondents. Besides the generation of summoning notices, the app

N^{IC} Amritsar has always acted proactively for the implementation Administration website. During the pandemic situation, NIC staff provided exemplary services to run District Administration smoothly through Video-conferencing, eOffice, dissemination of information through the District website and other digital solutions. The IT support provided during Punjab Vidhan Sabha Elections

NIC, Amritsar who has been working tirelessly for providing services to Dis-trict Administration & I hope to carry will facilitate in implementing many developed products of NIC across de-

atmosphere to enhance citizen service delivery.



generates a date-wise cause list of different courts, which is available to citizens as well.

It also facilitates citizens to access details of any case along with case status without any registration on the portal.

VMS

VMS gathers data about Government vehicles being operated in the state and calculates vehicle wise running and maintenance expenses. It helps DDOs to calculate expenses under Petroleum Oil and Lubricants head of each vehicle, condemnation of vehicles based on predefined terms. It also facilitates crisis management.

IVFRT

Being a border district of Punjab, Amritsar has two land immigration check posts, first at the International Airport and second at Foreigners Regional Registration Office (FRRO). NIC District team under the IVFRT project provides technical support to FRRO Amritsar, ICP Attari Road Amritsar, ICP Attari Rail Amritsar, ICP Airport Amritsar, ICP Dera Baba Nanak (Kartarpur Corridor) and District Foreigner Registration Office (DFRO). The team

▼ Fig. 4.2: Renovated complex of Jallianwala Bagh Smarak dedicated to Nation by Hon'ble Prime Minister, Shri Narendra Modi via NIC VC Service





Fig. 4.3: Hon'ble CM Punjab, Capt. Amarinder Singh, inaugurated NGDRS through Video Conferencing along with Cabinet Ministers and DG NIC

provides support to various application modules such as eFRRO, OCI, ICS, FSIS, Form-C, UCF Module, Deportee Module, ALIS, PAK Tracking System and Online Indian Citizenship to various departments of both Central and State Governments.

NICNET / NKN

The District Centre has established leased line connectivity in several state departments and their offices. As of now, 25 leased line links from 3 different service providers (BSNL, RAILTEL and PGCIL) are managed for 100 percent uptime.

Other Key Initiatives

Networking in New DAC

NIC Amritsar has designed and executed a network plan in the New District Administrative Complex (DAC). Also, shifted all leased line links and made them operational overnight.

Amritsar Fights Corona

A dedicated web-section "Amritsar Fights Corona" was created on official Amritsar District Administration website for dissemination of authentic information to the public viz. Office orders related to Containment Zones, Restrictions, Lockdown, Testing Centre, Vaccination Centre, Hospital Bed Availability, Oxygen Supply, Home Isolation and Emergency Contact, Control Room Helpdesk, ePass, Charity, and other COVID-19 events.

Fig. 4.4: NIC Amritsar felicitated by DC Amritsar, Punjab in recognition of services provided during Punjab Vidhan Sabha Elections 2022



COVID Control Room

A control room alongside a data cell equipped with ICT infrastructure for the collection and compilation of COVID-19 data was established by NIC District Unit. This data helped in the generation and analysis of various reports for better assessment of COVID-19 management.

National Migrants Information System

As a Nodal Agency for National Migrants Information System, the District Centre helped District administration in sending back about 30,000 migrant labourers to their native places.

Technical Inputs

NIC Amritsar provided technical inputs to the District Administration for development of DARPAN, i-Vaccination and i-Sehat apps.

Important Events Organised

Due to the pandemic, several State and National Level events were held in the virtual mode. Being ITC Nodal Agency in the District, NIC Amritsar provided technical support for setup of Video Conferencing facility, connectivity and live streaming outside hard VC studio during

- Inauguration of renovated Jallianwala Bagh Smark to the nation by Hon'ble Prime Minister for COVID-19 related Shri Narendra Modi
- Fig. 4.5: Commendation Certificate for NIC Amritsar by Shri Anil Joshi, Hon'ble Minister for Local Bodies, Government of Punjab



- Inauguration of various projects on Maharishi Valmiki Jayanti by Hon'ble Chief Minister of Punjab
- Centenary commemoration memorial function of Jallianwala Bagh Massacre at Amritsar
- Interaction of Hon'ble Prime Minister Shri Narendra Modi with the farmer members of Jagriti Farmer Producers Organisation from Amritsar on 1st January 2022
- Provided ICT services and technical support during Two days Heart of Asia Conference between Government of India and Government of Afghanistan at Amritsar

Awards and Accolades

- NIC Amritsar was felicitated by Deputy Commissioner Amritsar Shri Gurpreet Singh Khaira for providing round the clock support and successful implementation of IT applications for smooth conduct of Punjab Vidhan Sabha Elections 2022
- NIC Amritsar was honoured by Deputy Commissioner Shri Shivdular Singh Dhillon for providing exemplary IT support during Lok Sabha Elections
- NIC Amritsar was felicitated Commendation Certificate and Award of Honour by Hon'ble Cabinet Minister Shri Anil Joshi on 66th Republic day for providing excellent IT services to **District Administration**

Way Forward

NIC Amritsar aims to facilitate administration in implementing various ICT solutions across departments to create a paperless environment in order to enhance citizen service delivery and governance.

DISTRICT INFORMATICS OFFICER

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NIC @Digital India Week 2022

Catalylizing New India's Techade



he Hon'ble Prime Minister Shri Narendra Modi inaugurated the eighth edition of Digital India Week, with the arching theme 'Catalyzing New India's Techade' at Mahatma Mandir Convention and Exhibition Centre, Gandhinagar, Gujarat on 4th July 2022.

During the programme, he launched multiple digital initiatives aimed at enhancing the accessibility of technology, streamlining service delivery to ensure ease of living and giving a boost to startups. He also announced the first cohort of 30 Institutions to be supported under the Chips to Startup (C2S) Programme.

Hon'ble Chief Minister of Gujarat Shri Bhupendra Patel, Hon'ble Minister of Electronics & IT, and Communication, Shri Ashwini Vaishnaw and Hon'ble Minister of State for Electronics & IT and Skill Development & Entrepreneurship, Shri Rajeev Chandrasekhar alongside several people's representatives were among those present on the

Addressing the congregation, the Hon'ble Prime Minister gave a glimpse of continuously modernising India in the 21st century. He stated, "Through Digital India, India has exemplified how revolutionary the correct use of technology is for the growth of humanity."

The Hon'ble Prime Minister emphasised on the role of new and emerging technology during recent times and said that the power that Digital India has created in the country in the last eight years has helped India a lot in combating the Coronavirus pandemic. He pointed out, "We have transferred thousands of crores of rupees to the bank accounts of crores of women, farmers, labourers of the country at a single click. With the help of One Nation One Ration Card, we have ensured free ration to more than 80 crore countrymen ... We have run the world's largest and most efficient covid vaccination and COVID relief program. Through our Cowin platform about 200 crore vaccine doses have been administered and certificates given."

The Hon'ble Prime Minister expressed the hope that Digital India Campaign will keep on adding new dimensions to itself and will keep serving the citizens of the country.









n the past eight years, the Digital India program, which was once critiqued for its lofty goals, is now dubbed as the growth driver behind the New India. It has transformed the digital landscape of our country, proving that our digital products and services can transgress beyond economic barriers and empower the citizens equally. These digital products and solutions in terms of scale of implementation and management are unparallel to any analogous digital offerings anywhere in the world. They are scalable, secure and democratic and NIC has played a crucial role behind their evolution.

Shri Ashwini Vaishnaw Hon'ble Minister of Electronics & IT

Digital Govt. Solutions





aare Jahaan Se Achha Digital technological prowess of our country and many countries enviced the interest for collaboration with our institutions from both public and private sectors alike. Among them, NIC is leading the pack. From IndiaStack to High Performance Computing, digital products and services by NIC are redefining the digital terrain of our country. These digital services have created a unique opportunity to enhance transparency, improve governance and bring democracy closer to people.

Shri Rajeev Chandrashekhar







Dr. Rajendra Kumar









igitisation is not an end, but a means to an end. At NIC, our objective is to use digitisation as a means to improve the living standards for citizens of our country. We are focused on developing digital solution that can harness the power of internet and mobile telephony, thus, improving access to public services. Moving ahead, NIC will continue to work on digital products that not only bridge the social gap, but ease the life of common citizens.







oad accidents continue to be a leading cause of death, disabilities and hospitalisation in the country, which leads to sudden disruption and tragic consequences for countless citizens and their families on a daily basis.

The statistics show India in a very grim light with respect to the global road safety data. India dismally ranks first in the number of road accident deaths across the 199 countries and accounts for almost 11 percent of the accident related deaths in the world.

On an average, the number of major accidents in the country per year is around 5 lakh with a death toll of about 1.5 lakh - which is most anywhere in the world. If we look into the recently published data by the Transport Research Wing of the Ministry of Road Transport and Highways, Government of India, a total of 449,002 accidents took place in the country during the calendar year 2019 leading to 151,113 deaths and 451,361 injuries. In percentage terms, the number of accidents decreased by 3.86 points in 2019 over that of the previous year, while the accident related deaths decreased by 0.20 points and the number of persons injured decreased by 3.86 points. This information is based on information supplied by the Police



Joydeep Shome Dy. Director General joydeep@nic.in

iRAD

Road Accidents have become a menace in India. iRAD tries to solve it by creating an integrated road accident database to help authorities to take proactive decisions and make 'Better and Safe Roads for All.'

Departments of States and UTs in a set of standardised formats approved by the Committee on Road Safety.

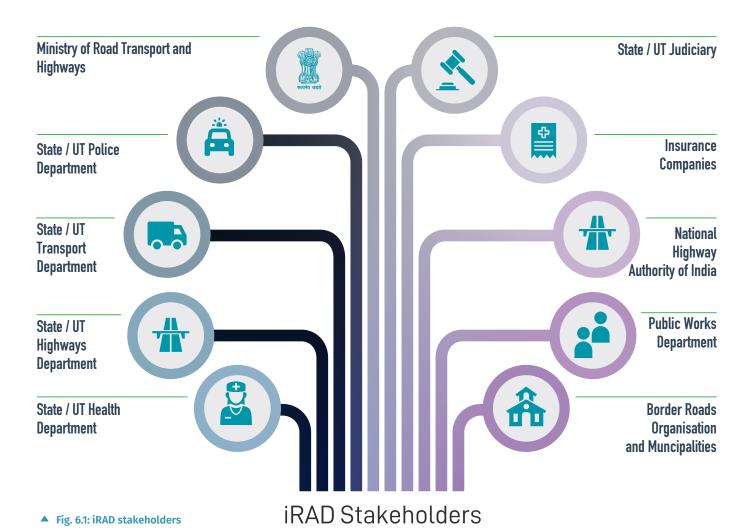
The social and economic cost of such a high number of accidents and fatalities are enormous - for the victims and families in particular and the country as a whole. According to one estimate, the total socio-economic cost due to the road traffic accidents in India is between USD 15.71 - 38.81 billion, which is estimated to be approximately 0.55 - 1.35 percent of the country's GDP.

Despite India being a signatory to the 2nd Global Conference on Road Safety held in Brazil in 2015, popularly referred to as the Brasilia Declaration, which resolved to halve the deaths alongside strong road safety and enforcement measures taken by the concerned authorities, the accident rates are not diminishing significantly. Ironically, as the road network has been advancing with faster highways and expressways, the number of accidents and deaths has also been increasing.

It is noted that National Highways which only comprise 2.03 percent of total Indian road network, continued to account for a disproportionate share of 35.7 percent of deaths in 2019. Further, State Highways which only account for 3.01 percent of the road length accounted for 24.8 percent of deaths. In total, both National and State highways comprise 5 percent of the total road network, but witness around 61 percent of the accidental deaths. Other Roads which constitute 95 percent of total roads were responsible for a balance of 39 percent deaths respectively. More accidents on highways may also be pointing to the need for improved enforcement and corrections to be put on National and State Highways.

In this context, iRAD (Integrated Road Accident Database) is a major initiative from Ministry of Road Transport and Highways (MoRTH), and is funded by the World Bank, with the objective to tackle the road accident menace in a scientific manner, utilising modern ICT tools and techniques in coordination with the ground-level personnel of accident management agencies.

The purpose is to collect reliable road accident data from the actual spot with detailed inputs from Police, Transport Department, Highway authorities and Hospitals and build up a

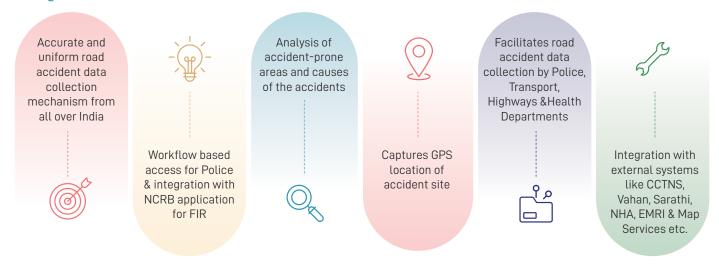


comprehensive database that can be further linked with other stakeholders in the ecosystem like Ambulance Services, Blood Banks, CCTNS, Insurance Companies, and Motor Accident Claim Tribunals.

This ecosystem provides proper reporting of accidents with reliable documentation, facilitates detailed analysis for prevention of accidents, a quicker help mechanism to get medical attention, alongside faster claim settlement from Insurance providers.

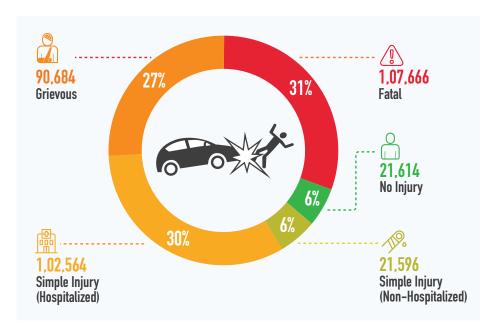
NIC and NICSI in collaboration with IIT Madras are implementing the system across the country. iRAD mobile and web apps are developed by NIC Chennai and are provided to all the stakeholders (Police Stations, RTOs, Hospitals, etc.) personnel from the ground level. (Refer Fig. 6.1)

▼ Fig. 6.2: Salient features





▲ Fig. 6.3: Road accident statistics (From 1 July 2021 to 30 June 2022 - as per iRAD data)



▲ Fig. 6.4: Road accidents: severity-wise statistics

Since its launch, 34 States and UTs have onboarded the system in a phased manner. As of now, over 3.40 Lakh accident cases involving 4.90 lakh persons have been recorded in the system in one year (a period from 1 July 2021 to 30 June 2022). Out of which, 1.08 lakh are death cases and 91,000 are those with grievous injuries.

NICSI has deployed 737 Roll-out Managers at both District and State levels and conducted about 40,000 training / hand-holding sessions at Central, State and District levels covering more than 2.28 lakh participants. Sustained efforts are made by NIC and NICSI to cover all the states and stakeholders, in order to make the system comprehensive.

The data collected through iRAD will be analysed using an advanced data analytics platform for identification of accident-prone areas and blackspots and other causes of the accidents including road engineering defects. The analysis output will also lead to better management of emergency response systems and health-care facilities for accident victims and also help in decision making and policy formulation by relevant authorities. The outcome of the project is expected to lead to better road safety.

Further, as per the guidance of the Hon'ble Supreme Court of India, iRAD system is being extended in its scope and functionality by incorporating the process of accident claim settlement. MoRTH has also notified new rules and a set of forms pertaining to Accident Claims Settlement. Accordingly, the iRAD system is being reoriented as eDAR (Electronic Detailed Accident Report system) and being redeveloped with enhanced functionalities for the police department and also additional services and users like insurance companies, MACT (Motor Accident Claims Tribunal) and so on. The prototype system has also been demonstrated to the Hon'ble Supreme Court and now the final testing and roll out of the system are being planned.

NIC and NICSI officers at Central (Delhi and Chennai), State and District levels are putting in their best efforts to make the project a success. Once the system is implemented comprehensively, it will lead to better reporting, management and analysis of accidents and their victims and will eventually help in reducing accidents and fatalities.

Joydeep Shome

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nvest Punjab is a user-friendly portal, facilitating new and existing investors of Punjab. It is helping investors in having Regulatory Clearances and Fiscal Incentives for setting up and running businesses in the State of Punjab. Invest Punjab ensures world class facilitation to the investors, right from conceptualization of the project till commencement of commercial operations, Renewals and Fiscal Incentives thereafter.

Salient Features

Invest Punjab has following innovative features:

- Land Bank Records
- Know Your Approvals
- One-Time Registration
- Dynamic Common Application Form (D-CAF)
- One-Time Document Submission
- Online Payment Gateway
- Online paperless filing and backend processing

- Online Issuance of QR Code based verifiable approvals
- Time bound approvals as per RTS Act
- Provision for Third Party Verifications
- Smart Dashboards for Decision Makers
- Tracking through Data Analytics
- Real-time Status / Alerts through SMS & Email
- · Pendency Intimation to Authorities on 50%, 75% and 90% Ageing of the Application
- Tracking of MoUs through MoU Tracker



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Navinder K Sharma Scientist-C navinder.sharma@nic.in

▼ Fig. 7.1: Stakeholder departments of Invest Punjab



- **Business Query Handling**
- Grievance Redressal Mechanism
- Intra-department Communication Mechanism
- Feedback Entry & Publishing Mechanism

Invest Punjab is beneficial for all domestic and international prospective entrepreneurs who consider Punjab as their preferred investment/ business destination. Further, this system is automatically forwarding the applications to State (FCI greater than Rs. 25 crore) or District (FCI equal or less than Rs. 25 crore) levels based on Fixed Capital Income (FCI) of the project. Currently, the stakeholder Departments are providing 67 Regulatory Clearances and 35 Fiscal Incentives approvals through Invest Punjab portal.

Challenges Faced in Implementation Process

Invest Punjab holds clearances from 23 departments / agencies and to get all departments / agencies in sync was a challenge. (Refer Fig. 7.1) To accomplish this, numerous presentations and discussions were held. Various acts, rules, notifications and guidelines have been studied for getting all departments / agencies onboard. During this exercise, focused effort was made to identify parallel and serial sets of activities involved at various levels. Following are the challenges (in brief) faced:

- Bringing 23 departments / agencies under one umbrella
- Development of Dynamic Common Application Form (D-CAF) to satisfies needs of each department/ agency
- Setting clearances timelines to understand the paradigm of the regulatory regime applicability and process re-engineering
- Fee and its distributions so that department can take all in one go
- Grant of approvals in fixed timelines

Lessons Learnt from Re-Engineering Process

- Standardisation to reduce system redundancy
- Governance reforms by enhancing transparency and timely approvals
- Business process re-engineering to facilitate the targeted population
- Person-wise mapping of required activities
- System enabled task alerts to enhance acceptability, efficiency and productivity
- Seamless inter and intra-communication between all stakeholders
- · System allows more visibility to officers to process applications

- Enhances flat working hierarchy
- Regular follow-up and targeted milestones have enhanced the efficiency
- · Activities can be easily measured, monitor and
- Allows flexibility in further improvement of process
- Outcome oriented
- · Reduces cost of administration

Benefits / Impact

Invest Punjab holds more than 7,098 projects with proposed investment of 2,36,820 crore and employment of 4,63,121. Using the portal, member departments have processed more than 1.10.000 clearances till date. It has been working successfully all over the state.

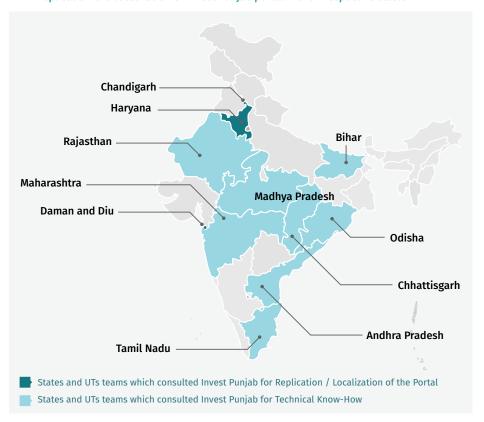
To study the successful model of Invest Punjab (SWCS), following States and Union Territories have visited NIC Punjab State Centre / Invest Punjab Office: Andhra Pradesh, Tamil Nadu, Odisha, Haryana, Maharashtra, Chandigarh, Chhattisgarh, Madhya Pradesh, Rajasthan and Bihar. As of now, NIC Punjab has helped the teams of Haryana, Chandigarh, and Daman & Diu in replicating the portal at their end. (Refer Fig. 7.2)

Tnvest Punjab portal was envisaged as a user-friendly state of art licensing portal used by new and existing investors of Punjab in having Regulatory Clearances and Fiscal Incentives for their business in the State of Punjab. Building on the success of Invest Punjab, the State has taken the ease of doing business to the next level by replacing multiple electronic interfaces by various regulatory departments and agencies, with a single unified Invest Punjab portal.



Kamal Kishore Yadav, IAS CEO, Punjab Bureau of Investment Promotion (InvestPunjab)

Fig. 7.2: States and UTs teams who have consulted Invest Punjab Office for feasiblity study, replication and localization of Invest Punjab portal in their respective states



Projects Onboarded		Employment Generated			
Total	State	District	Total	State	District
278	238	40	94,248	40,835	47,413

▲ Table 7.1: Overall Benefit/Impact of Invest Punjab Portal

S.No.	Investment Size	Projects	Investment	Employment
1	Above ₹500 Cr.	4	3,092 Cr.	23,416
2	₹100-500 Cr.	25	4, 985 Cr.	19,079
3	₹10-100 Cr.	74	2,462 Cr.	34,192
4	Upto ₹10 Cr.	175	523 Cr.	12,293

▲ Table 7.2: Overall Investment-Wise Impact of Invest Punjab Portal

S.No.	Financial Year	Projects	Investment	Employment
1	2013-14	2	137 Cr.	337
2	2014-15	11	305 Cr.	3,665
3	2015-16	24	1,467 Cr.	5,589
4	2016-17	27	861 Cr.	3,421
5	2017-18	22	1,167 Cr.	2,932
6	2018-19	166	5,722 Cr.	67,129
7	2019-20	26	803 Cr.	5,507

- ▲ Table 7.3: Overall Financial-Year-Wise Impact of Invest Punjab Portal
- ▼ Fig. 7.3: Invest Punjab Team Members

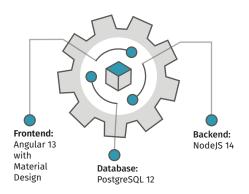


Fig. 7.4: NIC Punjab wins Digital India Award 2016 for Invest Punjab application in Exemplary **Online Service category**



Technology Used

All the modules were developed using Micro-Service Level Architecture where one backend can serve multiple frontends like Web App or Mobile App. The portal was developed using following technologies:



Accolades

Invest Punjab has brought following accolades to the State of Punjab:

- Punjab ranked first in 'Setting Up of Business' in the Assessment of State Implementation of Business Reforms by World Bank and Department of Industrial Policy & Promotion, Govt. of India in
- Adjudged Leader in implementation of 'Single Window Reforms' in the Assessment of State Implementation of Business Reforms by World Bank and Department of Industrial Policy & Promotion, Govt. of India in 2016
- Digital India Award 2016 in Exemplary Online
- SKOCH Order of Merit 2016
- Computer Society of India Nihilent Awards in

Way Forward

Invest Punjab team has designed an excellent application architecture which can be extended further for heavy loads in future, such as Checklist-based application processing, AI-based algorithm for final approvals, Incentive Calculator and Tag based document storage.

State Informatics Officer

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M CARES for Children was launched to support children who had lost their both parents / guardians to COVID-19 pandemic. The objective of this scheme is to ensure comprehensive care and protection of such vulnerable children in a sustained manner. The scheme is being operational through an online portal (https://pmcaresforchildren.in) as a single window system which facilitates registration of such children, approval process of their application and integration / assimilation of all other assistance provided to them.



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PM CARES for Children portal was envisaged as a one-stop-solution for bringing all the aspects of child welfare covered under PM CARES for Children scheme at one place viz. financial assistance, boarding & lodging, healthcare, scholarship & educational support. The platform was designed to act as a single window system for monitoring the progress of scheme implementation and tracking the development trajectory of each child. Several Central and State Govt. level schemes catering to child development and welfare have been onboarded onto the portal, so that a comprehensive picture of all benefits that are provided to the children can be obtained.

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NIC was entrusted with the task to design and develop the portal for receiving applications from the public. This portal was envisaged as a one stop solution for bringing all the aspects of child welfare in one place. As the portal had to be an all-encompassing solution with integration with several external systems and programmes, it was conceptualised to act as a novel solution that addressed a range of benefits and services viz. financial assistance, boarding & lodging, healthcare, scholarship and education support.

Salient Features

- Citizen-centric approach: Empowering citizens to register children on the portal on their own without need to approach any government functionary or authority.
- Transparent process flow: Paperless workflow where each level of scrutiny is done and eligibility is confirmed only after due approvals have been recorded on the portal.
- Child Profile: Complete profile of children covered under the scheme have been captured with deduplication using Aadhaar data such as age, educational qualifications, category, and residential details. There is a provision in the portal for regular updating of photographs, educational details, and health profile of the child. The profile is to be updated periodically so that real time information about the whereabouts and progress of the child can be attained.
- Convergence of schemes: Several Central and State Government schemes catering to welfare of children affected by COVID-19 have been onboarded on the portal and each child has been

linked to the schemes under which he / she is eligible to receive benefits. This will help in getting a consolidated view for effective supervision and monitoring alongside synchronisation in implementation of initiatives.

- Child Dashboard: Each child has been given a set of credentials to access their dashboard which enlist all the benefits for which he / she is eligible. The dashboard also includes the directory of nodal officers who are stakeholders in this scheme whom the child can contact when in need of assistance or emergency.
- Grievance redressal: Children constitute a vulnerable section of the society and are largely unaware of their rights and entitlements. As true empowerment stems from awareness, PM CARES for children scheme enunciates making the children covered under the scheme aware of their rights.

Thus, a grievance redressal mechanism with an escalation matrix has been provided that allows for raising and addressing grievances on the child dashboard. Any child who feels that he / she is not receiving the benefits promised under the PM CARES of Children scheme may raise a grievance reporting this gap. The portal has been designed to allow end-to-end tracking of resolution provided for each grievance reported.

This mechanism acts as a key performance metric to evaluate the service delivery. The learning obtained from the grievances can help in designing actionable improvements and shaping long term service design approaches.

- Identification and Verification: The Child Dashboard includes a unique QR code issued for each child registered on the portal. This code on scanning gives the details of that child. This can help when the child is asked to furnish proof of being covered under the scheme. The code is available only on the child dashboard so as to ensure privacy of the child.
- API Integration: Various eGovernance systems such as National Health Authority (NHA) are

integrated through APIs for data exchange and dynamic data retrieval.

- Provision for Migration within the Country: Modules for movement of children to new places for better opportunities and avenues has been provided so that the child can be traced through their lifecycle till they turn 23 years of age and the consistency of information is guaranteed.
- Data analytics: Drill down reports till the last level of granularity for monitoring and analysis according to age, gender, educational status, and residency can be generated through the portal.

Technologies and Innovations

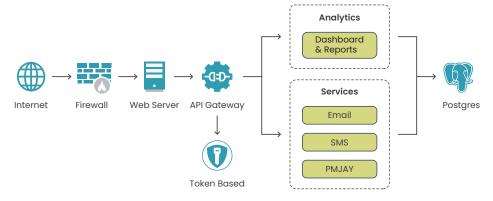
PM CARES for Children portal has been completely developed in Open Source technologies such as Laravel Framework, Postgres, JQuery, Bootstrap technologies present the benefit of being flexible, scalable and costeffective. These are community driven which is an additional advantage as in times of crisis, there is an extensive community to fall back upon to help out. This aids in continuous innovation and improvement over the existing features and functionality. (Refer 8.1)

Challenges Faced while Designing and Implementing the System

• Presence of multiple sources of information: Due to the nature of the scheme, child's details were subjected to frequent changes & updation which made the task of maintaining the data consistency and integrity a difficult process.

Analysis and reconciliation of the information fed by various sources were done so that the true picture could be obtained by tracing a child's progress by key information fed by these stakeholders, e.g., a child getting promoted to next class in the time elapsed between two entries.

▼ Fig. 8.1: Technology architecture behind PM CARES for Children portal



ur children are the future of the country whose lives were irreversibly altered by the COVID pandemic. Some of them lost both their parents / guardians to this deadly disease, making these children extremely vulnerable. PM CARES for children scheme has been instrumental in providing care and support for proper development and growth of these children. PM CARES for children portal has emerged as a one stop platform that provides services like health, education, scholarship, financial assistance etc to all the children covered under the scheme and has a channel for receiving feedback from the children. It is a unique example

of IT driven service delivery that brings together the various dimensions of child care in one place.



Secretary, Women and Child Development Government of India

- Lack of ICT enabled solutions: Some of the departments involved in release of benefits to the children did not have robust ICT systems in place which made the integration process very difficult.
- Lack of synergies between various departments: Several line ministries had similar schemes for the children, but with disparate non-ICT systems led to possible duplicate and non-standardised data models due to dispersed sources.
- Non-uniformity across States: Many states had their respective schemes where they were providing support and assistance in some form to COVID affected children. These schemes were diverse in their approach and criterion.
- Frequent changes in requirements and information to be captured: As the system evolved and progressed, several new fields were introduced that convoluted the monitoring process.

Benefits

COVID-19 has caused insurmountable problems to various sections of society and disrupted lives of several children who lost their parents / guardians to this deadly disease. A major challenge was to identify such children and bring them under the ambit of the scheme and simultaneously ensure that they receive well

PM CARES for Children

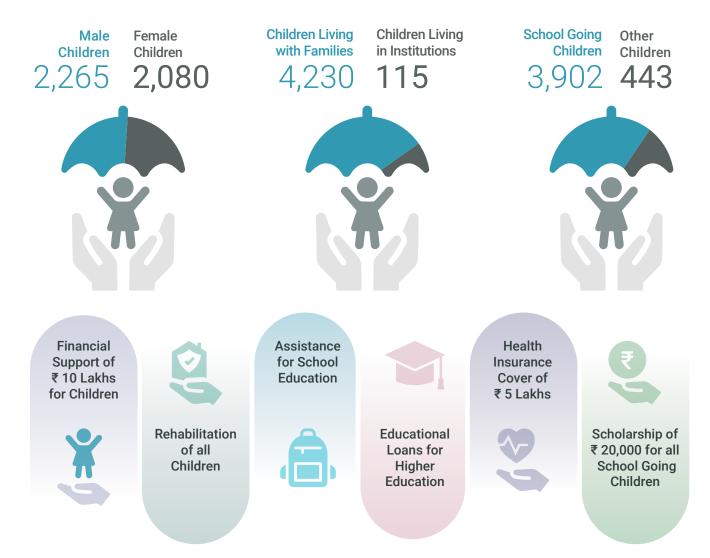


Fig. 8.2: An Overview of PM CARES for Children Scheme

rounded care and protection that they need to achieve their true potential. In a country of our size and proportion, this became a monumental task.

A total of 9042 applications were received on portal from across the country. Out of which, 4345 applications have been approved after rigorous scrutiny and verification. (Refer Fig. 8.2) The entire process of recommendation and approval was online to ensure transparency and traceability.

Regular consultations with stakeholders alongside iterative and dynamic redesign of the process flows resulted in a seamless user experience. A technical helpdesk was instituted from the beginning to troubleshoot any issues reported from the citizens efficiently.

Furthermore, several functionaries were to be brought on board and provided with their

respective dashboards so that they were in a position to monitor the real time progress.

The information that was to be captured was coming from multiple sources, thus, it had to be sanitised to ensure the data integrity, consistency and continuity.

Way Forward

PM CARES for Children portal was a result of a long enriching learning experience. The insights discussed may serve as a model solution where child-centric systems need to be developed. The system offers various dimensions of child welfare in one place so that complete tracking can be done.

This portal offers a unique solution to the problem of data in silos that is plaguing many of the information systems aimed at public service delivery. Various types of public services were brought onto one single platform so as to give holistic coverage to the intended beneficiaries. Thus, this approach can help in addressing the complexities and challenges in designing a similar multidimensional system that can aid in data-driven decision making and citizen centric governance.

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TAANI

Text Analytics Assistance by NIC

Edited by MOHAN DAS VISWAM

ext Analysis has become an essential part of information gathering from news, social media, and other documents to understand changing human sentiments, take corrective actions for effective policy implementation and intercept evolving dynamics of public engagement. It is founded on the bedrock of Natural Language Processing (NLP) algorithms, which helps machines to understand and process human languages. In this article, the concepts of Text Analytics and NLP along with their use case will be briefly discussed.



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Text Analysis has become an essential part of information gathering from news, social media, and other documents to understand changing human needs and take corrective actions for effective policy making. It is founded on the bedrock of Natural Language Processing, which helps machines to understand human languages. From predicting results with classifiers to generating texts that can fool humans, these tools have moved leaps and bounds. With regional languages in the picture, there are immense possibilities for these services other than simple transliteration and translation.

Technology Brief

NLP can be defined as the automatic manipulation of natural language, like speech and text by software. It helps machines in translation, search, and predictive text typing. NLP problems are as challenging as human language and filled with ambiguities which make it incredibly difficult to write software that can accurately determine the intended meaning of text or voice input. Several NLP tasks break down human text in a way that helps the computer make sense of what it is ingesting. Some of these tasks are:

Part of Speech (PoS) tagging: It is the process of determining the part of speech of a particular piece of text based on its use and context. For example, it identifies 'make' as a verb in 'I can make a paper plane,' and as a noun in 'What make of car do you own?'

Word Sense Disambiguation (WSD): WSD helps in the selection of correct meaning of a word from multiple definitions through a process of semantic analysis which determines word meaning that makes the most sense in the given context. For example, it can distinguish the difference in the word 'bank' in 'They bank on him to save the match' (depend - verb) compared to 'River bank is a beautiful place to do morning exercise' (place

Named Entity Recognition (NER): NER identifies words or phrases as useful entities. It helps to distinguish names of entities such as names of people, places, and things. It can be customised to identify other features of importance in text such as age, salaries and other data sets.

Sentiment Analysis (SA): SA attempts to extract subjective qualities such as attitudes, opinions, emotions, beliefs, and perspective from the text.

Features

- Context extraction using Attention mechanism
- Data interpretation by Language Modelling

Customised Named Entity Extraction

Specifications

It is a known fact that machines do not understand text. They converse in the language of zeros and ones. For which, one needs to represent required information in encoded form. It can be done with the help of encoding tools such as Word2Vec and Bag of Words, which gives a probability to a particular set of words so that they can be represented in an array form and convey information such as frequency of their occurrence in the corpus. This is known as Term Frequency-Inverse Document Frequency (TF-IDF). These vectors are further used in text generation and machine translations. They are compatible with tensor maths which can be executed as matrix multiplications in tensor cores of a GPU in highly parallel fashion.

There is also a huge variety in document composition and textual context, including sources, format, language and grammar. Tackling this variety requires a range of methodologies:

Text Pre-processing: Transformation of internal and external document formats (e.g., HTML, Word, PowerPoint, Excel, PDF text, PDF image) into a standardised searchable format, often require Optical Character Recognition (OCR) tool to extract texts from scanned pdfs. For the ability to process embedded tables within text, COE has developed an OCR based tool for text extraction from images and made them available to Judiciary MACP cases and CBSE.

Natural Language Toolkit (NLTK): Most of the time, we get unstructured, incorrectly formatted data, for which we may need to format it in order to make data ready for modelling purposes. NLTK is a python library developed by NIC CoE-AI that provides a number of tools for cleaning & making the data ready for modelling purposes.

Text Annotation: TA helps us to identify, tag and search in specific document sections which are important for training the AI model. For example, to use NER algorithms to detect credentials of a petitioner or respondent such as name, age, salary and dependents, one needs to annotate a number of cases to train the AI model. Several open source tools are available for doing text annotations.

Language Modelling: LM helps to determine the probability of a sequence of words in a text such as phrases or sentences, noun and verb groups together to form a relationship between themselves and make the computer capable of generating similar sentences.

Pattern recognition & Text Classification: To discover and identify categories of information, which are not easily defined with a dictionary approach like NER, Pattern Recognition helps to classify and categorise the text and help predict similarity scores in predictions. For text classification, we require tens of thousands of text annotations.

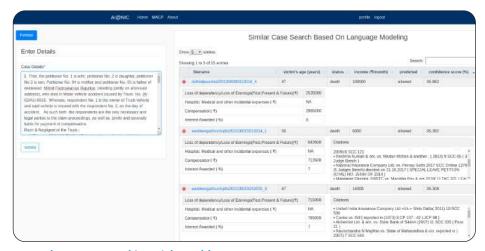


Fig. 9.1: Motor accident claim petition



Fig. 9.2: Text translation from 11 Indian language to English and vice versa

Model Training: For training a classifier model, a language model needs to be build, which is trained on a large corpus of data such as Wikipedia English in order to generate proper English sentences and teach domain specific lexicon for correct interpretation.

A language model attempts to learn the structure of natural language through hierarchical representations; thus, it contains both low-level features (word representations) and high-level features (semantic meaning). For example, After training a language model, it can form proper sentences and paragraphs like humans. It can be seen in the phrase "Petition was Signed", which is a totally fictitious piece.

Application Areas

In case of Motor Accident Claim Petition (MACP), over forty thousand case orders with representation from all High Courts were annotated in such a manner that the learning model is not biased. The cases were classified accepted, partially accepted, partially rejected, rejected and settled. Also, citations and compensation were made available from case orders. Since, Hindi case orders also formed a sizable volume, the text translation was also carried out before annotations to give equal representation. (Refer Fig. 9.1)

In addition, NIC provides Matra Text Transliteration Services through Bharat API in 11 regional languages. Moreover, Al Panini - Text Translation based API Services Model has been deployed for translation from 11 Indian regional languages to English and vice versa. (Refer Fig. 9.2) These eleven languages are Hindi, Bengali, Gujarati, Marathi, Assamese, Kannada, Malayalam, Marathi, Odia, Punjabi, Tamil and Telugu. Similarly, Al Shruti provides Speech-to-Text and Text-to-Speech API Services in English and Hindi.

Benefits of Text analytics

- Allows interpretation of messages
- Topic modelling from text documents
- Text summarisation
- Q & A interpretation from text documents
- Text generation for predictive typing
- Sentiments analysis

Rohit Kumar

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Appscape

Showcasing latest mobile apps developed by National Informatics Centre

obile technology has emerged as a primary tool for governments to serve their citizens. It has bypassed the need of traditional physical networks for communications and collaborations. It is also much more affordable and accessible, thus 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 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 Administration, Development, Finance, Public Distribution, Health and Education.

Digital Sansad

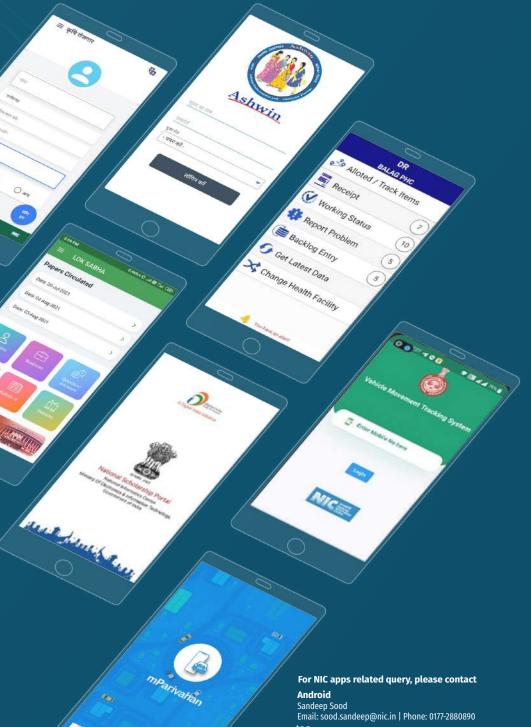
igital Sansad App is an initiative by the Parliament of India to keep its communication channels up-to-date with evolving technological landscape and expand its digital footprints. The app is a one stop solution for viewing all information related to the daily business of the Lok Sabha. The users can see live proceedings of the House, Members' profile, Question / Answers and Todays' Papers. The app also contains information on budget speeches since 1947 as well as House discussions from the 12th Lok Sabha to 17th Lok Sabha.

The app will also help members of parliament to access services like checking personal updates viz., House bulletins, the status of their notices, and so

As Members are barred from using laptops inside the house. Thus, this app will become handy for them to get parliamentary information during any debate in the House.

In future, the app is proposed to help Members to log in for attendance, give questions for the Question Hour as well as submit notices for debates or adjournment motions.

Shri Sanjay Mendiratta (sanjaymen@nic.in)



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https://apps.mgov.gov.in/

mParivahan

imed to bring convenience to citizens and transparency in the transport sector, mParivahan is a generalised citizen-centric mobile app, which primarily provides instant access to various information, services and utilities related to the transport sector.

It is a one-stop solution for all India RTO vehicle registration search. It provides complete information about any vehicle which is registered in India such as Owner Name, Vehicle Registration date, Registering Authority, Vehicle Make and Model, Vehicle Fuel Type, Vehicle Age, Vehicle class, Vehicle Insurance and Fitness Validity.

The major benefit of this app is that it can help the user to find details of any parked, accidental or theft vehicle by just entering the vehicle registration number and reporting the vehicle to the authority. Moreover, the app allows you to create an encrypted virtual Driving Licence and Registration Certificate for the vehicle and verify the details, which is a foolproof mechanism ensuring convenience to citizens and efficiency for enforcement agencies.

The app is integrated with eChallan solution such as Vahan and Sarathi, enabling rule compliance on real time basis.

Shri Joydeep Shome (joydeep@nic.in)

Vehicle Movement Tracking System

dehicle Moving Tracking System (VMTS) is a generalised mobile app that has been designed and developed by National Informatics Centre Haryana State Unit for tracking commercial vehicles carrying industrial and mining materials like sand, concrete, and ores.

The app can be accessed all over the 22 districts of Haryana and only the users with registered mobile number in the database are authorised to login. Through this app, the vehicle details along with other information such as vehicle number, vehicle type, moving from, moving to, driver name, driver mobile number, and driver licence number can be fetched through the app. If a vehicle moves beyond source and destination checkpoints, then officials can mark the vehicle exit from the check post as interim exit and on the destination checkpoint, it will be marked as final exit.

All travel history of vehicle movement is maintained and can be viewed through the mobile app anytime.

Ashwin Bihar

A shwin Bihar is an android-based mobile application designed and developed by NIC Bihar State Unit to encourage the efforts made by the ASHA workers and facilitators in the state

ASHA workers have played a crucial role in connecting marginalised communities to the health care system. Especially, looking back in the past two years, they are one of the unsung heroes in the fight against COVID-19.

Ashwin Bihar mobile app provides an arrangement to give ASHA workers and facilitators to easily claim their incentives on a regular basis.

The details of eligible work for incentive amount can be directly filed by the ASHA worker / facilitators through this mobile app as per her convenience.

After which, on the basis of the recommendation of Auxiliary Nurse Midwife (ANM) and Block Community Mobilizer (BCM), the incentive amount filled by Block Health Manager (BHM) and Medical Officer in-charge will be approved.

Based on the approval, the incentive amount will reach directly to the bank account of ASHA workers and facilitators through the district administration.

😩 Shri Rajesh Kumar Singh (sio-bih@nic.in)

eKrishi Rojgar

Krishi Rojgar mobile app has been jointly made with the efforts of Indira Gandhi Krishi Vishwavidyalaya (IGKV) and NIC Chhattisgarh State Unit to make farming more accessible via providing the access to digital agriculture resources to the farmers.

It is one of its kind in the country providing facilities to the agricultural graduates, technicians skilled in maintenance and management of agricultural equipment, youth having knowledge of agricultural enterprise and farmers having knowledge of advanced agriculture to register themselves and connect with other farmers in state. The app will facilitate farmers and agriculture entrepreneurs to contact and employ willing farmers and students, thus, providing a stream of revenue or income, according to their skills and qualification.

Besides providing services related to traditional farming, the app also provides tutorials on various crops for advanced farming and technical information related to allied agriculture activities such as fisheries, poultry, horticulture and floriculture.

Oxycare

xycare app provides a hand held tool for the Last Mile Health Facility (Primary Healthcare Centre / Civil Healthcare Centre / Civil Hospital) to receive medical equipment sent by the Ministry of Health and Family Welfare, Government of India through the State / District National Health Mission (NHM) officials. The user will be able to scan a secure QR to record receipt of the supplied equipment.

The user can report daily / periodic working status, check stock and track shipped items for the health facility. In case any PSA is installed in the health facility, the live PSA Dashboard is also available.

A list of whitelisted users is issued by the state / district administrations. Each health facility consignee is updated on the portal and only then the user will be able to login in the app.

The user is also able to report working status on a daily basis for the first 15 days after the installation of the Oxycare app and thereafter, gets the option to report working status anytime. The Oxycare working status reported at least once in 15 days is highlighted with green (reported), 16-30 days with orange (Due) and after 30 days as red (overdue) colour.

Shri Mohammad Rauf Wani (dio-bdg@nic.in)

National Scholarship Portal

ational Scholarships Portal mobile app is a complementary android-based mobile app for National Scholarships Portal, through which various services related to Central and State level student scholarships starting from student application, application receipt, processing, sanction and disbursal of scholarships to students are enabled.

The mobile app aims at providing a Simplified, Mission-oriented, Accountable, Responsive & Transparent 'SMART' system for faster & effective disposal of scholarships applications and delivery of funds directly into beneficiaries account without any leakages.

The mobile apps helps in identifying the duplication in processing and harmonises different scholarships schemes and norms for students. It also facilitates students to receive regular SMS alerts and notification at the various stages of the scholarship application process.



Hon'ble PM, Shri Narendra Modi, releases benefits under PM CARES for Children Scheme through NIC Video Conferencing Service

on'ble Prime Minister, Shri Narendra Modi, released benefits under PM CARES for Children Scheme on 30th May 2022 via NIC's video conference service. The Hon'ble Union Minister for Women and Child Development, Smt. Smriti Zubin Irani, along with several other members of the Council of Ministers, Chief Ministers, and Ministers from various States were among the dignitaries connected to the event.

A Certificate / Sneh Patra signed by the Collector / District Magistrate; a letter from the Hon'ble Prime Minister; passbooks of the PM CARES for Children Scheme account; and health cards under Ayushman Bharat -Pradhan Mantri Jan Arogya Yojana were handed over to the children during the program by the dignitaries.

PM CARES for Children scheme was launched by the Hon'ble Prime Minister Shri Narendra Modi on 29th May 2021 to support children who lost both their parents or legal guardians to the COVID-19 pandemic. The objective of the scheme is to ensure comprehensive care and protection of children in a sustained manner by providing them boarding and lodging, empowering them through education and scholarships, and equipping them for selfsufficient existence with the financial support of ₹10 lakh on attaining age of 23 years and ensuring their wellbeing through health insurance.

The scheme is being operational through a web-based portal which may be accessed at https://pmcaresforchildren.in. The portal has been designed and developed by National Informatics Centre (NIC) as a single-window system that facilitates processes related to registration, approval, and all other assistance / benefits being provided to children covered under the PM CARES for Children Scheme along with other schemes propagated by the Ministry of Education and Ministry of Health.

NIC's relentless effort in meeting steep timelines in designing the portal and its unstinted support in the smooth conduct of the event was appreciated by all stakeholders and line ministries. The user department acknowledged the pivotal role NIC played in the whole process from registration of children to transfer of benefits to eligible children.

-Informatics News Desk, NIC-HQ



Hon'ble PM, Shri Narendra Modi, releases over ₹21,000 Crore under PM-KISAN Scheme

he Hon'ble Prime Minister Shri Narendra Modi released the financial benefit amounting to more than ₹21,000 crore to more than 10.12 crore farming families under the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme on 31st May 2022 during the Garib Kalyan Sammelan in Shimla, Himachal Pradesh.

Shri Rajendra Vishwanath Arlekar, Hon'ble Governor of Himachal Pradesh, Shri Jairam Thakur, Hon'ble Chief Minister of Himachal Pradesh, Shri Anurag Singh Thakur, Hon'ble Union Minister for Information & Broadcasting and Youth Affairs & Sports, Government of India along with various other State Minister were present in the event. The Chief Ministers from several states and farmers connected to the events through the NIC video conferencing service

During the event, the Hon'ble Prime Minister interacted with the beneficiaries from the various States and UTs of Tripura, Karnataka, Gujarat, Ladakh, and Himachal Pradesh to know the impact of central welfare schemes on their life.

The PM Kisan Samman Nidhi portal is designed and developed by the NIC and was launched by the Hon'ble Prime Minister on 24th Feb 2019. It provides an end-to-end technology solution for transferring benefits directly into the accounts of farmers registered under the PM-KISAN Scheme.During Quadrimester April-July 2022, the majority of beneficiaries (about 8.75 crore) have received payments using Aadhaar based payment mode.

Several new features have been incorporated in the PM-KISAN portal over the period like a refund mechanism through NTRP integration, online OTPbased as well as biometric-based KYC facility along with integration with



external systems like Income Tax, and Pensioners database for identifying ineligible beneficiaries. The system has also been integrated with the state's land records system. Furthermore, the integration with the One Nation One Ration Card database is in progress.

Besides, several other facilities have also been added with enhanced features like Know the Beneficiaries Status, Income Tax payee identification, CSC integration, Online Self Registration and linkage with UIDAI, PFMS Ack-Nack features for account validation and payment files reconciliation, Bulk processing of unique Farmers list and then the distribution of list installments wise for RFT signing and FTOs creation, Random selection of physical verification, Multi-factor authentication for secure login, etc.

-Ajay Singh Chahal, Himachal Pradesh

RailTel, NIC and NICSI enter into a tripartite MoU

RailTel Corporation of India (RailTel), a Central Government PSU under the Ministry of Railways; National Informatics Centre (NIC) under the Ministry of Electronics and Information Technology (MeitY); and National Informatics Centre Services Incorporated (NICSI), a Government of India Enterprise under NIC have entered into a tripartite Memorandum of Understanding (MoU) intending to "provide one-stop managed end-to-end NIC eOffice and SPARROW solution to user organisations by leveraging and synergizing the facilities and capabilities with each other."

Dr. Rajendra Kumar, Additional Secretary, MeitY, Government of India, Shri Puneet Chawla, Chairman and Managing Director, RailTel, Shri Sanjai Kumar, Director (Network Planning and Management), RailTel, Shri Anand Kumar Singh, Director (Finance), RailTel, Ms. Rachna Srivastava- Deputy Director General & HoG, NIC, and Shri Prashant Kumar Mittal - Managing Director, NICSI were among those present on the occasion of MoU signing ceremony. Other senior officials from RailTel, NIC, and NICSI also attended the function.

RailTel has recently implemented a mega eOffice project for Indian Railways over its 216 establishments (zones / divisions / CTIs / workshops). There are more than 1.38 lakh, users of Indian Railways, on the eOffice platform handling over 20 lakh e-files and generating more than 1.36 crore e-receipts. It is one of the largest NIC eOffice roll-outs in the country. The eOffice implementation has resulted in enhanced transparency, quick and systematic disposal of files, and timely monitoring of pending files alongside a reduction in carbon footprint by fostering paperless office culture.



On this occasion, Shri Rajendra Kumar, Additional Secretary, MeitY informed that eOffice is being extensively used by the Government Departments at both State and Central levels as well as at PSUs across the country. He added that the eOffice proved to be the lifeline in keeping the Government offices functional during the recent COVID-19 era. He hoped that after this MoU, NICSI, and NIC could also leverage the association for offering other NIC / NICSI Software Products using RailTel managed cloud services.

Smt. Rachna Srivastava, DDG & HoG, NIC conveyed that the eFile module alone is being used in the country by more than 8.77 lakh officials and more than 3.19 crore files have been created so far. She added that the eOffice system is enabled for local languages and several states are using the eOffice in their respective languages.

-Informatics News Desk, NIC-HQ

Inauguration of NeVA Sewa Kendra and Tablet equipped Vidhan Mandap by Hon'ble CM Shri Yogi Aditya Nath

on'ble Chief Minister of Uttar Pradesh, Shri Yogi Adityanath, on Friday, 19th May 2022, inaugurated the NeVA (National e-Vidhan Application) Seva Kendra and Tablet-equipped Uttar Pradesh Vidhan Mandap located in the presence of the Hon'ble Speaker of Uttar Pradesh Legislative Assembly, Shri Satish Mahana.

Hon'ble Deputy Chief Minister of Uttar Pradesh, Shri Keshav Prasad Maurya, along with Shri Suresh Kumar Khanna, Hon'ble State Minister for Finance and Parliamentary Affairs, Shri Dayashankar Singh, Hon'ble Minister for State Transport, Shri Avnish Kumar Awasthi, Additional Chief Secretary, Shri Pradeep Dubey, Principal Secretary Legislative Assembly were present on the occasion.

NeVA is a device-neutral application created to equip members of the legislative assembly to handle diverse House Business smartly by putting entire information regarding member contact details, rules of procedure, list of business, notices, bulletins, bills, starred / unstarred questions and answers, papers laid, committee reports, etc. in their hand held-devices / tablets and equip all Legislatures / Departments to handle it efficiently. Citizens can also gain access to this information at their fingertips. NeVA will eliminate the process of sending out a notice / request for the collection of data. Through cloud technology, data deployed can be accessed anywhere at any time.

Hon'ble Speaker Shri Satish Mahana decided that NeVA should be implemented in the 1st Session of the 18th Assembly through this the Assembly should be made paperless and all Hon'ble Members of UP Legislative Assembly & concern officers will have to make this project successful.



Inauguration of NeVA Sewa Kendra and Tablet equipped Vidhan Mandap by Hon'ble Chief Minister Shri Yogi Aditya Nath under NeVA Uttar Pradesh

Under this project, a state-of-the-art NeVA Seva Kendra was established in the state legislature to provide orientation / training on various modules of NeVA to all the Members of the State Legislature, officials of the State Legislature Secretariat and officials of State Government Departments.

NeVA Seva Kendra has all modern computer-based teaching aids as well as a Video Conferencing facility for remote learning. Audio Video training modules are developed by MoPA for training on eVidhan. The training material is developed in English as well as Hindi.

-Rajeev Rastogi, Uttar Pradesh

Launch of 86 eServices under the eGovernance Mission by Hon'ble Administrator of Chandigarh

hri Banwarilal Purohit, Hon'ble Governor of Punjab and Administrator of Chandigarh, launched 86 eServices developed and designed by NIC Chandigarh under the eGovernance mission of the Central Government for the benefit of citizens on the 2nd May 2022.

The prolific work done by NIC Chandigarh Unit in designing and developing the eServices was praised by the Hon'ble Governor, Shri Banwarilal Purohit. Hon'ble Member of Parliament, Chandigarh, Smt. Kirron Kher and Adviser to the Administrator, Shri Dharam Pal also applauded the efforts made by the NIC Chandigarh.

Details of 86 eServices launched under the eGovernance program can be summarised as:

- Chandigarh Housing Board launched 8 eServices covering schemes related to residential property
- Chandigarh Labour Welfare Board (CLWB) and Chandigarh Building & Other Construction Workers Welfare Board (CBOCW Board) launched 5 services covering 24 schemes
- Excise & Taxation Department, Chandigarh made online 23 Services covering 86 regulatory compliance certificates
- 27 Direct To Benefit Schemes were made online
- Transport Department, Chandigarh made 17 services online
- Estate Office, Chandigarh made 5 services online



Shri Banwarilal Purohit, the Hon'ble Governor of Punjab and the Administrator of Chandigarh, launching 86 eServices developed and designed by NIC Chandigarh

eGovernance makes the government more accountable and answerable to citizens and leaves little room for doubt or misrepresentation. The eServices will not only benefit the people of Chandigarh but also the people in deep rural areas surrounding Chandigarh by making the whole process noncumbersome. The general public can avail of the services and get their work done without visiting the relevant offices and in their leisure time. These services can be availed through the web as well as mobile application. The services would be faceless / contactless and reduce the footfall of visitors in the respective departments.

-Manraj Kaur, Chandigarh

Hon'ble CM Gujarat launched Integrated Road Accident **Database Project**

on'ble Chief Minister of Gujarat, Shri Bhupendrabhai Patel, launched the Central Accident Database System iRAD (integrated Road Accident Database) for analysing the causes of road accidents and devising the road safety methods to reduce accidents on 1st May 2022 at the occasion of 53rd Gujarat Foundation Day in Patan District along with several other development projects.

Hon'ble Minister Shri Jagdish Ishwarbhai Vishwakama and Hon'ble Minister Shri Jitu Vaghani also attended the function. Senior officials from all stakeholder departments (Police, Transport, Road & Buildings, Health) including Shri Ashish Bhatia, DGP Gujarat, Shri PK Singh, State Informatics Officer, Shri HP Mehta, Technical Director & State Coordinator NIC Gujarat, Shri Ajay Singh, DIO Gujarat, were also present.

The iRAD Project is an initiative of the Ministry of Road Transport and Highways (MoRTH), Government of India, and implemented by National Informatics Centre. NIC, Gujarat has deployed rollout managers at both state and district levels. The team has conducted more than 440 training programs



which were attended by around 7500 officers of all four stakeholder departments. Regular meetings were also conducted to speed up the project and create awareness at the local level.

-Amit Dinkerbhai Shah, Gujarat

NIC Assam implements Assam CM's brainchild - CM-TRANS

M-Transport Randomised Allocation Networked System (CM-TRANS) was launched by the Hon'ble Chief Minister of Assam, Dr. Himanta Biswa Sarma on 13th May 2022 at the bank of the mighty Brahmaputra.

CM-TRANS is a revolutionary online work allocation system that will uniformly distribute work among the transport offices, improve efficiency, speed up service delivery, eliminate middle-men intervention and corrupt practices.

The novel system was conceptualised by the Hon'ble Chief Minister of Assam, Dr. Himanta Biswa Sarma, himself and has been implemented by NIC Assam in the Assam Transport Department.

Assam has become the pioneering state to have adopted the random work allocation system. CM-TRANS applies to all contactless transport services currently being offered to citizens of Assam and gradually will be extended to all other online transport services.

The new system does away with the concept of verification and approval of applications for services in the District Transport Offices (DTOs) in which they are submitted and instead allocates them randomly in any of the 32 DTOs of Assam based on their individual workloads. The applications gets automatically routed to DTOs with lesser work. This uniform distribution of work ensures greater efficiency and faster service delivery. The applicants and the DTOs are not informed where the applications have been randomly routed. This ensures the complete elimination of the role of the middle-men and unnecessary harassment of applicants.

Launching the CM-TRANS, the Hon'ble Chief Minister lauded the exceptional work done by NIC Assam, not only in the Transport Sector but also in the Revenue Sector of the State. He also launched 12 more Vahan and Sarathi contactless services in the same event. It takes the total number of contactless services in Assam to 25.

-Kavita Barkakoty, Assam



Hon'ble CM Chhattisgarh launches Online Revenue Monitoring Portal

on'ble Chief Minister of Chhattisgarh, Shri Bhupesh Baghel, inaugurated an online monitoring module for unresolved cases for name transfer, account division, demarcation, diversion and tree felling. In a bid to ensure the timely disposal of cases, monitoring will be done through this module directly from the Office of the Hon'ble Chief Minister. Other stakeholders who can also access the module are the Hon'ble Minister of State Revenue and other senior officers to the level of District collector.

Hon'ble CM, Shri Bhupesh Bhagel, also transferred a total amount of Rs. 71.8 Crore to the beneficiaries of Rajiv Gandhi Gramin Bhoomihin Krishi Majdoor Nyay Yojna, to provide financial support and justice to 3.55 lakh rural landless families.

The Rajiv Gandhi Gramin Bhoomihin Krishi Majdoor Nyay Yojna Portal has been designed and developed by NIC Chhattisgarh. It allows beneficiaries to directly fill forms that are verified by Patwaris and thus, submitted to Secretaries of Panchayat. The data entry has been done at the Janpad



level and transferred online to Tehsildars for verification. After verification of Tehsildars, Gram Sabha approvals had been taken and a final list was prepared finally, the payments were done via Direct Bank Transfer through a regularised bank. The portal can be accessed at https://rggbkmny.cg.nic.

-Y.V. Shreenivas Rao, Chhattisgarh

Hon'ble Chief Justice, HP High Court launches Court Case Status App

on'ble Mr. Justice Mohammad Rafiq, the Chief Justice of the High Court of Himachal Pradesh, launched the Android-based Court Cases Status Mobile Application of High Court of Himachal Pradesh, in the august presence of the Judges of High Court of Himachal Pradesh, Hon'ble Ms. Justice Sabina, Hon'ble Mr. Justice Tarlok Singh Chauhan, Hon'ble Mr. Justice Vivek Singh Thakur, Hon'ble Mr. Justice Ajay Mohan Goel, Hon'ble Mr. Justice Sandeep Sharma, Hon'ble Mr. Justice Chander Bhusan Barowalia, Hon'ble Ms. Justice Jyotsna Rewal Dua and Hon'ble Mr.Justice Satyen Vaidya.

The Court Cases Status Mobile Application of the High Court of Himachal Pradesh has been updated with new features such as an advocate directory, case status, judgments, and orders search with several display options such as cause list, digital display, free text search, e-gate pass, my diary, important judgments and links for District Courts' websites. This will benefit Advocates, Litigants, and the General Public alike. The App also has a facility to seek the feedback of the user.

The App enables users to search and store their court cases locally and get all updates related to the particular case automatically whenever any date / order is issued. The District Courts' websites have been linked to this



mobile app so that users can have access to all other cases, orders, and cause lists of all Courts of Himachal Pradesh through a single mobile app.

The mobile app has been developed as per the directions of the Hon'ble Chief Justice of Himachal Pradesh, considering the special requirements of the Himachal Pradesh High Court by NIC officers.

-Ajay Singh Chahal, Himachal Pradesh

Police Commissioner, Bhopal launches eChallan in Madhya Pradesh

s a big step toward digitalisation and to bring transparency, the eChallan system is adopted by the police department of Madhya Pradesh. The eChallan service was inaugurated by Shri Makrand Deusakar, Police Commissioner, Bhopal on 19th May 2022 in the presence of Shri J. Janardan, Additional Director General of Police & Nodal eChallan-Madhya Pradesh; Shri Amar Kumar Sinha, Dy. Director General & SIO NIC Madhya Pradesh State Centre; Shri Swadesh Shrivastava, Sr. Technical Director & General Manager-NICSI; Shri Goutam, iRAD-SRM, alongside other senior officials from stakeholder departments.

In the first phase of the project, a total of 1800 POS machines will be deployed in 52 districts of the state. Initially, eChallan was launched in the capital city of Madhya Pradesh, Bhopal, on a Pilot basis. Within one week, it was rolled out in 10 districts of Madhya Pradesh. It is scheduled to roll out in all districts of the state by 5th June 2022. From the launch date of the echallan 19th May 2022 till 27th May 2022, a total of 1705 challans have been issued through POS devices and around Rs. 6,78,251 are collected.



-Swadesh Shrivastava, NICSI

Hon'ble Minister Dr. K. Sudhakar launches eKalyani Portal in Karnataka

Kalyani - a portal developed by NIC for accrediting private clinics to provide abortion care, was launched by Dr. K. Sudhakar, Hon'ble Minister of Health & Family Welfare, Government of Karnataka in the august presence of Shri Dinesh Gundu Rao, MLA, Gandhi Nagar, Karnataka on 20th April 2022.

The portal aims to support private sector service providers to get their hospitals / clinics approved and empanelled for the provision of Comprehensive Abortion Care (CAC) services. It provides detailed information on relevance and steps to get the facility empanelled alongside a list of documents to be enclosed. It also provides a facility to update the services provided at the facility regularly.

The portal also regularly provides updates on service provision, policy and regulations, and any other key developments concerning abortion care and the Medical Termination of Pregnancy (MTP) Act.

According to the MTP Rules 2003 and 2021, training certifications are necessary for facility providers and practitioners. All CAC can register online by uploading signed documents. Then, the application is sent to DFWO / DHO for inspection and approval. The applicant can monitor the status of the application during each stage of the process. The portal captures all CAC centre activities such as registration, admission rate, and treatment provided with various other attributes for better decision-making to issue empanelment certificates.



This online facility also helps the State Government to track MTP services offered throughout the state, thus, the state has complete control over these facilities and can work on reducing the maternal mortality rate in the state.

-B.P. Srinivasan, Karnataka

Curtain Closure of Mission Basundhara by Hon'ble CM Assam Dr. Himanta Biswa Sarma

on'ble Chief Minister of Assam, Dr. Himanta Biswa Sarma, attended the curtain closure ceremony of Mission Basundhara held at Sankardev Kalakshetra, Guwahati on 8th May 2022.

On this occasion, the Hon'ble Chief Minister also launched the Online Composite Land Transfer Service that would facilitate citizens to get No Objection Certificate (NOCs), Registration & Mutation of land in Kamrup district. In the next phase, these services will be extended to other districts of the Assam state.

Hon'ble Chief Minister also launched the project for a detailed survey of a total 1074 number of non-cadastral villages of the state. He also awarded Shri Mridu Pobon Rajkhowa and the NIC Assam team for their rigorous efforts in the development and implementation of the Mission Basundhara portal.

The ceremony was attended by Shri Jogen Mohan, Hon'ble Minister of Revenue and Disaster Management, Shri Jishnu Baruah, Chief Secretary of Assam, Dr. Suchitra Pyarelal, SIO Assam, and other senior officials from various stakeholder departments / organisations.

Mission Basundhara was launched by the Hon'ble CM on 2nd October 2021 to offer 10 Online Land Related services to citizens of Assam along with a survey of 766 Non-cadastral villages and a Re-survey of 772 villages. These services are Mutation by right of inheritance, Mutation after deed registration, Partition for undisputed cases, Reclassification of agricultural land to non-agricultural land less than 1 bigha, Allotment certificate to periodic Patta, Conversion from annual patta to periodic patta, Striking out of name from patta, Mobile number updation, Name correction, and Area correction. Approximately 8 lakh applications were received by 7th December 2021 and by 8th May 2022, all the applications were processed successfully.



NIC team of Integrated Land Record Management System (ILRMS) includes Shri Tapan Gogoi (HOD, Scientist-F), Sushri Sabina M. Sheikh (Scientist -D), Sushri Farida Begum Saikia (Scientist-D), Shri Rahul Deka (Scientist-C), Shri Mridu Pobon Rajkhowa (Scientist-C) and Shri Mridul Suklabaidya (Scientist-B).

-Kavita Barkakoty, Assam

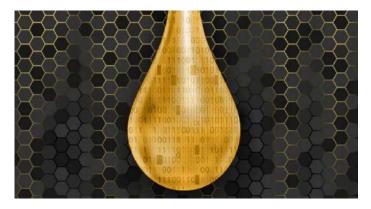
Australian Researchers Develop New Cyber Honeypot Tech

suite of cutting-edge cyber honeypot technology has been developed by Australian students, researchers and industry professionals. The DecaaS (Deception as a Service) Project uses machine learning (ML) models to create highly realistic albeit fake versions of digital assets that are attractive to hackers.

The team remarked that the approach of using honey pots was developed to rapidly detect if people have broken into a system about the intent, equipment and processes that adversaries are using.

The project's lead researcher, Dr. Kristen Moore of Australia's national science agency, CSIRO, explained that the DecaaS project team has created models to generate fake content and traffic, including code repositories, email servers, Wi-Fi traffic and Wiki corpora, to create a convincing cyber honeypot. Furthermore, officials at the Cyber Security Cooperative Research Center noted that these are real-world threats with potentially devastating consequences.

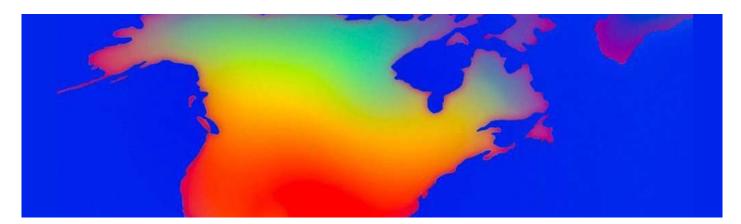
The DecaaS project commenced in November 2019 alongside CSIRO's industry partner. The project is supported by Cyber-Security CRC and aims to apply cutting-edge machine learning and artificial intelligence to generate realistic computer systems and assets to deceive intruders who make their way into a system.



As cyber threats increase in volume and sophistication, AI and machine learning offer an opportunity to assist overwhelmed human defenders and speed up decision-making and response. This is in addition to delivering more agile defences in a way that was not previously possible.

Source- https://opengovasia.com/

US Unveils Website to Help Combat Extreme Heat Conditions



ately as many parts of the US and Europe have experienced a heat wave resulting in dangerously high temperatures, the US administration launched a web application to help the public and government officials better respond to and understand the impacts of extreme heat.

The web application, known as heat.gov, is designed to serve as an interagency hub for the distribution of federal resources, data and tools related to extreme heat. Heat.gov was launched by the National Integrated Heat Health Information System (NIHHIS), a collaboration of federal agencies that includes the Centers for Disease Control and Prevention (CDCP), the National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA), among others.

Extreme heat, which is responsible for thousands of hospital visits a year and is the leading cause of weather-related deaths, is expected to grow in severity over the coming years as a result of global warming.

In addition to worsening drought conditions and harming the agricultural industry, high temperatures also disproportionately harm older Americans,

those who are pregnant, outdoor workers, and those who are experiencing

During a media briefing unveiling the site on Tuesday, NOAA Administrator Rick Spinrad said that the platform features heat information from a wide range of federal agencies-including interactive maps, forecasts, tips and other resources—to help officials and Americans navigate heat waves. He further added, "It truly is an all-of-government approach, which includes heat forecasts from our weather service at NOAA and information about our Urban Heat Island Mapping Campaign that focuses on the most vulnerable populations."

The website evolved out of the work of the Interagency Working Group on Extreme Heat, an initiative created to combat the effects of extreme heat on the US.

Source- https://www.nextgov.com/

Singapore Employs Deep Learning to Predict Human Movement

he researchers at National University of Singapore have employed deep learning technology to model and forecast human movement and then use that information to optimise evacuation, reduce accidents, and ease traffic congestion during emergency situations.

The research team is particularly interested in modelling how people would run or flee in such circumstances. According to the lead head, Associate Professor Gary Tan, NUS Computing, when people are in a panic, they act extremely differently and try to anticipate what would happen when.

The application's data-driven approach makes it easier to build crowd management tactics that are more effective and delivers a more accurate prediction of human reactions in a crisis.

The framework interprets the movement patterns of pedestrians in realworld video feeds and converts them into data that can be used in a virtual simulator. The technology uses deep learning techniques to identify objects in specific video frames and accurately track them across the video feed. They recreate settings and imitate actions that would be too expensive or risky to be carried out in real life.

The methodology is distinctive because, in contrast to earlier pedestrian simulation methods, it takes a data-driven approach and aims to investigate human behaviour directly from real-life footage. Since they are adapted from real video, this raises the level of realism.



Source- nus.edu.sg/

Scotland Envisages National Drone Medicine Delivery Services



he researchers at University of Strathclyde are developing a national drone network throughout Scotland. The network is intended to transport medicines, bloods and other medical supplies by drone, including to remote communities in Scotland. The consortium has already designed drone landing stations for National Health Service (NHS) sites across Scotland and developed a virtual model of the proposed delivery

The vision is to connect hospitals, pathology laboratories, General Practice surgeries and distribution centres across the country. The first live flight is expected to take place in 2023.

Hazel Dempsey, innovation project manager at NHS Grampian, said it was looking at how drones could improve logistics, particularly for urgent deliveries where they might otherwise need to use taxis or other inefficient methods.

She gave the example of chemotherapy treatment for myeloid leukaemia, where subcutaneous injections need to be taken on 7 consecutive days, every 28 days. The medication has to be freshly prepared by a specialist laboratory, which means patients in remote areas may need to travel for hours each day to reach a hospital able to provide treatment.

Fiona Smith, project director at CAELUS and head of aerodrome strategy at Aberdeen, Glasgow and Southampton Airports group, said the project is set to revolutionise the way in which healthcare services are delivered in Scotland. A drones network can ensure critical medical supplies can be delivered more efficiently; it can reduce waiting times for test results and, more importantly, it can provide equity of care between urban and remote rural communities.

Source- https://www.strath.ac.uk/

NIC Wins Big at CSI-SIG eGovernance Awards 2021

IC and its teams working across various projects and technologies throughout the country have won multiple awards under different categories at the 19th Computer Society of India - Special Interest Group (CSI-SIG) eGovernance Awards 2021, which were recently held at Motilal Nehru National Institute of Technology, Prayagraj on the eve of Saturday, 23rd April, 2022.

CSI-SIG eGovernance Awards is a series of awards instituted by the Computer Society India to recognize the contributions towards eGovernance by the State, Departments, Districts and Projects. (1) Starting from the state, the state of Odisha was conferred with the Award of Excellence for 'Adoption of Best IT Practices' in State Category. The award was jointly received by the NIC Odisha team and the Odisha State Department of IT. (2) NIC's RT-PCR App & COVID-19 Sample Collection Management System was conferred with 'Award of Excellence'. It is a digital solution designed

and developed by NIC to monitor RT-PCR status from all over the country & generate required raw / processed data for Indian Council of Medical Research. (3) SANDES, an open source instant messaging platform, by NIC won the Award of Excellence under project category. (4) National Scholarships Portal, (5) Duare Sarkar (6) DARPAN (7) Odisha Legislative Assembly Application, (8) OxyCare Management Information System, (9) eAbkari Project, (10) SVAMITVA (A Dashboard for Ministry of Panchayati Raj) and (11) eMARG (electronic Maintenance of Rural Roads under PMGSY), also won the Award of Excellence under various categories.

(12) MP Tenders Portal powered by NIC's eProcurement System, (13) DigiPharMed, (14) National Testing Agency Examination System, (15) mParivahan, (16) OPTIMUM, (17) Disaster Assistance Monitoring and Payment System of Odisha, (18) Treasury Net (Manipur), bagged Award of Appreciation under various categories.

Furthermore, various teams from NIC Headquarter, State Centres and District Centres for the successful implementation of (19) NICMEET Haryana, (20) NIC's National Helpline Against Atrocities on SC / ST members under PCR Act 1955 and POA Act 1989, (21) MC Suite of Applications for MCD, (22) Central Management Information System (CMIS), (23) Right To Education 12.1 Uttar Pradesh, (24) eMaapVigyan, (25) Kritagyata Assam, (26) UP Higher Education Digital Library, (27) Audit Process and other Services in the Department of Cooperation, Madhya Pradesh, (28) Online NOC & Affiliation System for Opening of New Courses / Colleges in Uttar Pradesh, (29) Haryana Real Estate Regulatory Authority (HRERA), (30) TelePractice have received the "Award of Recognition" under various categories.



Accolades









Prime Minister's Award For Excellence 2021





he Hon'ble Prime Minister Shri Narendra Modi conferred the Award of Excellence for Public Administration to National Generic Document Registration System (NGDRS) and Seva Sindhu Project on the occasion of Civil Service Day, 21st April 2022 at New Delhi.

NGDRS is an end-to-end workflow enabled document registration system which allows citizen across 13 States and UTs of India to access the state website and submit their document for

registration at the respective Sub-Registrar Office online. The system is designed and developed by Software Development Unit, NIC Pune. The award was received by Shri Hukum Singh Meena, Additional Secretary, Department of Land Records, Government of India on behalf of NGDRS and DoLR team.

Meanwhile, the Seva Sindhu project has been developed on the 'Service Plus' platform of National Informatics Centre. The Service Plus team

of NIC Delhi Headquarters and NIC Karnataka State Centre have provided continuous support in customization and implementation of this platform. The platform now provides 789 services from 74 departments under one roof and serves over one lakh users on a daily basis. The award for Seva Sindhu Project was received by Smt. Dipti Kanade, Director, Electronics Delivery of Citizen Services, Government of Karnataka.

Elets Innovation Award for Digidhan Dashboard



IC's Digidhan Dashboard has received the Elets Innovation Award 2022 under the category for "Digital Governance". The award function was part of the Elets AatmaNirbhar Bharat Summit, which is a platform to celebrate the spirit of innovation and recognize path breaking initiatives taken in the field of Information and Communication Technology. The two day summit was held during 19th-20th April 2022 in New Delhi.

The Digidhan dashboard acts as the primary platform for the government to track growth of digital payments. It automatically consolidates the data from Reserve Bank of India (RBI), National Payments Corporation of India (NPCI), 110 public sector/ private sector / payments / regional / rural / foreign banks and uses Business Intelligence (BI) reporting to generate assorted reports.

AGI Award of Excellence for Bharat-Maps and National Image Web Service



eo-Spatial Technology and Services (GSTS) Division from National Informatics Centre, MeitY has received the Association of Geospatial Industries (AGI) Award for Excellence in Mapping for the development of the BharatMaps and National Image Web Service from former Surveyor General of India, Major General Girish

The BharatMaps is a multi-layer GIS framework platform extended for eGovernance and Planning to various ministries and departments including citizen services for flagship schemes / programs of Government such as Svamitva, BharatNet, School Mapping, Gram Panchayat Development Plan and Large Scale Mapping in Urban Cities among others.

