

Informatics

An e-GOVERNANCE PUBLICATION FROM NATIONAL INFORMATICS CENTRE



Manipur State

Uttar Pradesh State

Budgam District

Dhamtari District

Lower Dibang Valley District

Pithoragarh District

Viluppuram District

AIMS

eGramSwaraj

NICler

Double Diamond Design Process

Intrusion Detection System

एन आई सी
NIC

Uttar Pradesh

Driving Innovation through Information Technology

Edited by **RAJEEV JOSHI**

NIC Uttar Pradesh is using information technology to modernize the public service delivery system, providing convenient access to services and enhancing democratic values. This has resulted in greater effectiveness and efficiency in managing government initiatives. The approach is scientific and impact analysis can be conducted. Over the last 4-5 years, NIC has been successfully implemented several eGovernance projects in the state, transforming Uttar Pradesh into a picture-perfect mirror image of the modern day, progressive India. By placing both, sophisticated technologies and available resources in complimenting tandem, it harnesses some of the world best ICT innovations into good governance.



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Established in 1988, NIC Uttar Pradesh has partnered with the State Government in its endeavour to automate government processes and leverage Information and Communication Technology to connect with citizens. Over the course of more than 35 years, NIC has implemented various initiatives that utilise the latest technologies with the aim of empowering the people and promoting the state's development. These eGovernance projects have not only made government services more accessible to citizens, but they have also facilitated quick, responsive, transparent, and hassle-free administration.

ICT Initiatives in the State

NIC has presence in all 75 districts of the state and strategic departments such as Chief Minister's Office, Board of Revenue, High Court, Finance Department etc. to provide 24x7 IT support. The network connectivity through NICNET, NKN, SWAN & SCAN (Sachivalaya Campus Area Network) has more than 30,000 nodes, 80,000+ email accounts and 10 Gbps Internet bandwidth extended to all Tehsils & Block level through 885 Point-of-Presence (PoPs) of SWAN. NIC Data Centre houses more than 100 servers hosting 450+ databases and 250+ websites. NIC also extends studio & desktop based video conferencing services to various functionaries of the State Government, district courts and jails.

Some of the major ICT initiatives implemented by the NIC Uttar Pradesh are:

NeVA

National e-Vidhan Application (NeVA) is a mission mode project to digitize State Legislatures and make them paperless. It aims to bring all the legislatures of the country together, in one platform thereby creating a massive data depository without having the complexity of multiple applications wherein different modules are interlinked to one another.

This application has been successfully implemented by NIC UP in both houses of Uttar Pradesh with support from Ministry of Parliamentary Affairs, Government of India, making Uttar Pradesh Legislative Assembly (UPLA) and Uttar Pradesh Legislative Council (UPLC), the first assembly and council in the country to conduct a paperless session under the NeVA programme.



▲ Fig 2.1: Hon'ble Chief Minister Yogi Adityanath inaugurating NeVA Sewa Kendra at UP Legislative Assembly in presence of Hon'ble Speaker, Shri Satish Mahana

The application allows for smart handling of house business with access to various details such as member contacts, rules, bills, committee reports, etc.

In Uttar Pradesh, the application was officially launched by the Hon'ble Chief Minister of Uttar Pradesh, Yogi Adityanath at UPLA on 19th May, 2022 during its summer session and at UPLC on 8th December 2022 during its winter session. A tablet and an eBook have been attached on the tables of Hon'ble Members of UPLA and UPLC.

UP MineMitra

<https://upmines.upsdc.gov.in/>

The Department of Geology and Mining, GoUP is responsible for allotting leases for mining minerals on leased areas, generating revenue of over Rs. 1500 Cr every year. To digitise the entire manual lease system, NIC UP developed UP Mineral Portal for the allotment of licences (lease) and issuance of e-Transit Pass to the

leaseholders (lessee). The portal also helps the department maintain the details of leaseholders, allotment of mineral-wise / plot wise leases, accounting of royalty, and MIS for providing monitoring reports.

The application comprises four modules, namely, eMM11, Transit Pass, Form-C, and Working Organisation.

- eMM11 is furnished by the Lessee to the vehicles carrying minerals out of the mining area. The vehicle driver has to carry a printed copy of the form during his journey to the destination. The delivery has to happen within the time stated in the eMM11 form.

- Transit Pass is required by vehicles bringing mineral into the state.

- Form-C is generated by the Licensee for delivery of minerals picked from a stockiest. This is generated by the stockiest. The vehicle driver

needs to carry Form-C during his journey to the destination.

- Working Organization verify all types of transit passes like eMM11, eform-C, and Transit Pass using Web API for other state and mining server database for intradistrict movements.

eDistrict Uttar Pradesh

<https://edistrict.up.gov.in/edistrictup/>

Since its inception in 2013, eDistrict has been providing citizens in Uttar Pradesh with access to a comprehensive range of government services, including the issuance of vital certificates such as birth certificates, death certificates, and income certificates. The platform also facilitates citizens in applying for a broad spectrum of government schemes and subsidies, such as scholarships, pensions, and healthcare schemes, and offers easy access to relevant information regarding government services and schemes. Moreover, it has seamlessly integrated with numerous government departments to ensure the swift delivery of services to citizens. This integration has played a pivotal role in promoting transparency and accountability in governance across Uttar Pradesh.

Salient features

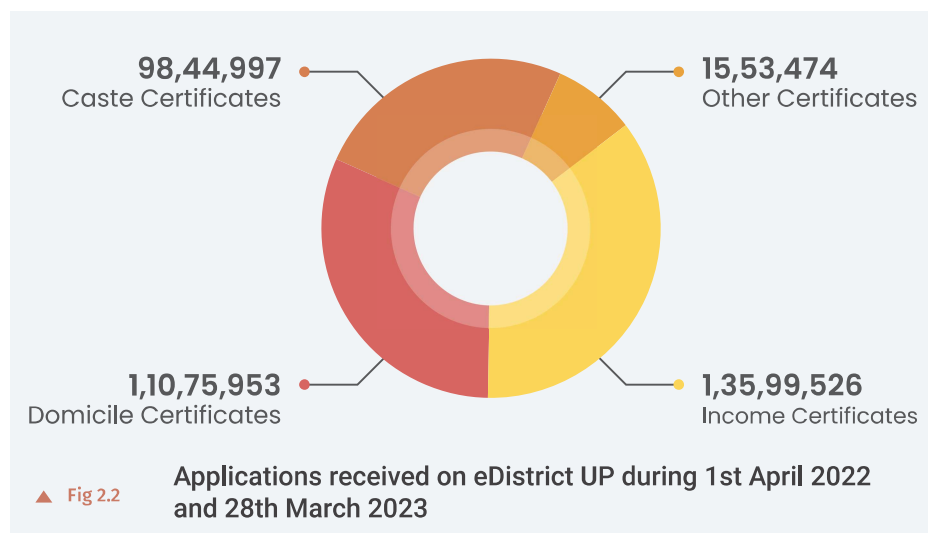
- Issues Digitally Signed Certificates (DSCs)
- Integrated with various departments for validation of supporting documents
- Integrated with electronic Service Level Agreement (eSLA) for timely delivery of services
- Facilitates online appointment booking
- SMS / Email alerts at various stages of application
- Automation of each activity involved in Service Delivery

In last one financial year, the portal has received over 3.60 crore applications. Out of which, approximately 98 lakh applications were of caste certificates, 110 lakh applications were of domicile certificates, and 135 lakh applications were of income certificates.

ePension UP

<https://epension.up.nic.in/>

ePension is an online platform that offers pension-related services to retired government employees. It provides a range of services related to pension schemes and allows citizens to apply for pensions, check their application status, and receive payments directly in their bank accounts. It has a user-friendly interface and a dashboard to track the application and payment status. The platform uses Aadhaar authentication to simplify the application process and reduce fraud. ePension has significantly reduced processing time, minimised errors, and improved efficiency and transparency in the pension system of Uttar Pradesh.



Salient features

- Online registration and application for pension by employee six months prior to retirement
- Online forwarding of the verified pensioner forms to pension issuing office by DDO within 30 days
- PPO issuance before 3 months of retirement
- Online payment of the pension by treasury to the retired employee
- Contactless, paperless and cashless pension benefits sanctioning and disbursement
- Pensioner can track status of his / her pension case and download pensioner half through portal

Integrated Social Pension System

<https://sspy-up.gov.in/>

The primary objective of the system is to facilitate the online dissemination of information and direct transfer of pensions to the bank accounts of four pension schemes (old age pension, widow pension, divyang pension and leprosy pension) aimed at benefitting over 90 lakh pensioners in our society. The system provides beneficiary-wise pension disbursement details that are accessible on the Internet, and the platform has an automated process for calculating pension amounts, significantly reducing the probability of manual errors.

As of the second quarter in financial year 2022-23, over Rs. 5000 crore has been transferred to 90 lakh pensioners across the state.

eTula

<https://etula.up.gov.in/Metrology/>

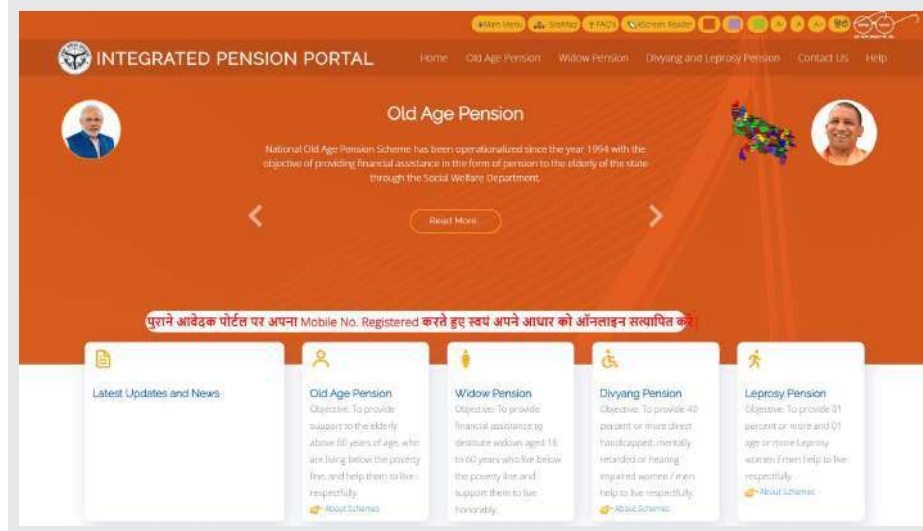
eTula is a web application launched by the Government of Uttar Pradesh to provide access to metrology services to citizens of the state. The platform is designed to simplify the process of measuring and certifying weights and measures used in commercial transactions. eTula was launched in 2019 and has since become a vital component of the government's e-governance initiative in the state. It offers a range of services related to metrology, including the verification and calibration of weighing and measuring instruments used in commercial transactions. Citizens can use the platform to register their instruments, request verification and calibration services, and receive certificates of accuracy.

Dhwani

<https://dhwani.up.nic.in/>

With the vast amount of data available in the government domain, there is an immense potential for leveraging Artificial Intelligence and Machine Learning to drive a new era of data-driven governance. Dhwani is one such small but significant step taken by NIC UP towards this goal.

Dhwani primarily aims to use the data repository for the direct benefit of citizens and



▲ Fig 2.3: Integrated Social Pension System Portal Homepage

to enhance existing e-Governance services. It offers various AI-based services through REST APIs that can be utilised by various state / central government departments, with an objective to provide services that can be resolved through the use of AI / ML algorithms.

Salient features

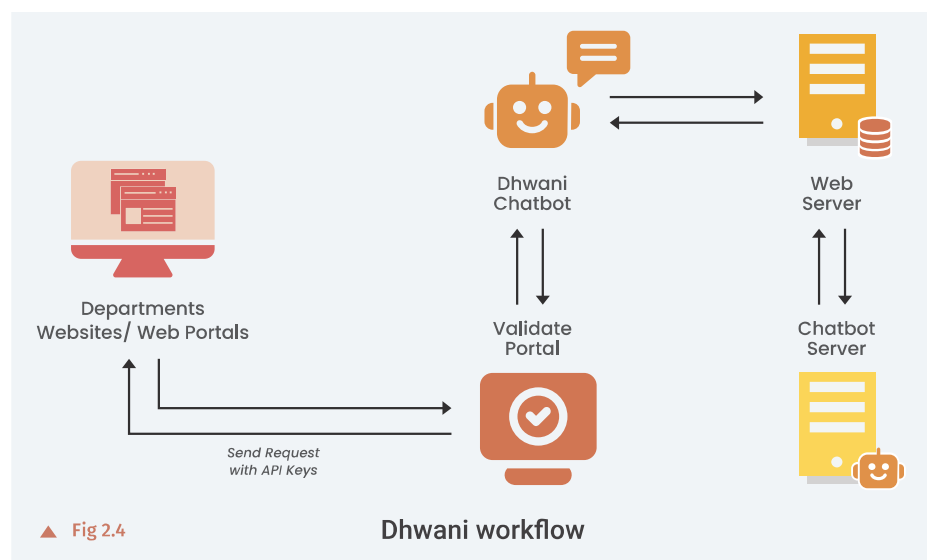
- Facilitates the integration of Chatbot Services into web portals for virtual assistance
- Detects if an uploaded image is clear enough and contains a human face
- Compares two images to identify if they contain the same objects or human faces
- Utilises OCR technology to convert text within images into editable digital documents
- Converts text from one language to another, supporting nine Indian languages

Srishti

<https://gis.up.nic.in:8080/srishti/pwd/mis/mis.php>

Srishti is a web-based Geographic Information System (GIS) portal that provides accurate, reliable, and easily accessible data for planning, designing, and implementing infrastructure projects. The portal has been developed by NIC UP in collaboration with the Uttar Pradesh Public Works Department (UPPWD) and is designed to cater to the specific needs of the state government.

Srishti has been integrated with UPPWD Road Asset Management System, Natural Resource Information System (NRIS), UP Police Examination Centre Mapping, MNREGA Works Mapping, Paddy Crop Residue Burning Incidence Mapping, and UP Village Mapping 2011 to enable the identification of potential risks and challenges in infrastructure



▲ Fig 2.4

Dhwani workflow

projects, providing real-time insights and recommendations to stakeholders.

Salient features

- Enables real-time monitoring and tracking of infrastructure projects, mapping of project progress, identification of delays, and provision of regular updates to stakeholders
- Generates dynamic maps for Blocks, Tehsils, Districts and State by clubbing village boundary polygons on respective standard codes
- Facilitates public participation in infrastructure development by providing a platform for citizens to view ongoing and proposed infrastructure projects, and submit feedback

As of now, GIS based maps of 75 districts, 821 Blocks and 1,07,410 villages has been created. Moreover, the data from Health, Education, Drinking Water, Irrigation, and Communication has been linked with the village maps. It also has data on 2 lakh kilometers of road network in the state with quality parameters such as length, width and colour of each road.

DARPAN

DARPAN (Dashboard for Analytical Review of Projects Across Nation) is a configurable and multilingual dashboard product designed for senior government officials. It presents real-time data on key performance indicators of selected schemes and projects for planning, evaluation, and monitoring purposes. By consolidating multiple data sources into one centralised platform, it enhances data analysis and allows users to personalise their view to prioritise information. The dashboard identifies trends in data to provide enhanced perspectives of the projects.

NIC UP has created DARPAN dashboard instances for

- Hon'ble Governor
- Hon'ble Chief Minister
- Chief Secretary
- District Magistrates, and
- Divisional Commissioners

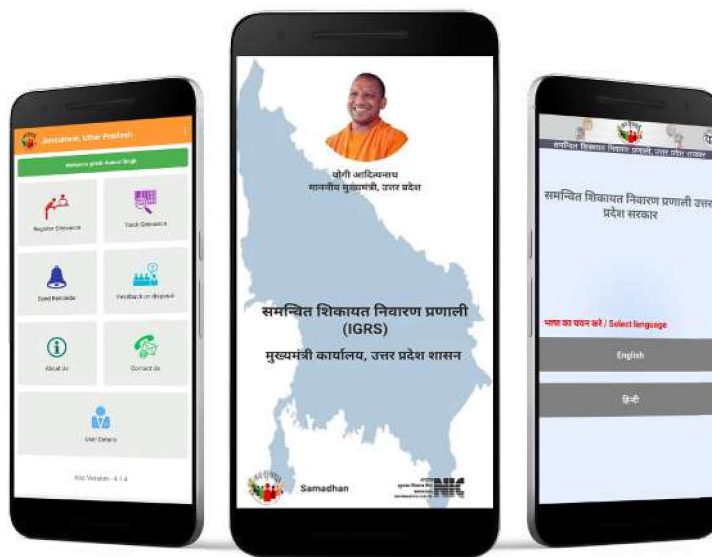
Salient features

- Provides a quick overview of project statistics through our At-a-Glance view with Drill Down Reports and Graphical Analysis
- 24/7 access to the Dashboard from any device any location, with data that is updated in real time at regular intervals
- Prioritise workload by ranking projects, so that one can focus on the most important ones first

Jansunwai Samadhan

<https://jansunwai.up.nic.in/>

Jansunwai Samadhan is an online grievances



▲ Fig 2.5 Jansunwai Samadhan App

platform that provides citizens with a forum to voice their grievances, complaints, and feedback regarding government services and schemes. Since its launch, it has become an essential tool for citizens to communicate their concerns directly to the government. It provides a user-friendly interface where citizens can submit their complaints along with relevant details such as their name, contact details, and the nature of the grievance. Once a complaint is registered, citizens receive a unique reference number that they can use to track the progress of their complaint.

Jansunwai Samadhan has also been integrated with several government departments, making it easier for officials to track complaints and take appropriate action. It enables citizens to submit complaints related to a range of services, including electricity, water supply, roads, healthcare, education, and public safety. It also allows citizens to provide feedback on government schemes and initiatives.

Features

- Allows citizens to file, track, and give feedback on application at one place
- Allows citizens to upload supporting documents such as photographs and videos to substantiate their complaints
- SMS / email alerts on every stage of deposition
- Search and tagging of duplicate references
- Request a callback from the concerned department to discuss their grievances in detail
- Provides a resolution feedback mechanism for better input
- MIS & GIS dashboard for monitoring
- Automatically generates Monthly Performance Reports for all levels of officers

- Provision to increase quality of disposal through random checking and physical verification

PRERNA

<https://igrsup.gov.in/>

PRERNA (Property Evaluation & Registration Application) is an innovative web-based application developed by the NIC UP that facilitates the online registration of properties in the state.

The application is designed to simplify and streamline the property registration process, making it easier for citizens to register their properties online without the need for physical visits to the registration office. It allows users to track the progress of their registration application in real-time, enabling them to stay updated on the status of their application. It features a document management system which enables users to upload and manage all the necessary documents required for property registration, including sale deeds, power of attorney documents, and identity proof documents.

Since its launch, PRERNA has been a game-changer for property registration in the state. In 2021 alone, the state government has raised over Rs. 18,926 crore revenue, taking the eMarket value above Rs. 2.28 lakh crore. The platform has also recorded more than 1.67 crore document generations, 3.52 lakh Digital Non-Encumbrance Certificates (NECs) generation and more than 35 lakh deeds registration.

Digital Land

<https://upbhulekh.gov.in>

Digital Land is an integrated and interoperable solution for extending e-Services related to rural areas of the state. It comprises seven online web applications: BHULEKH, Revenue Court Cases

Management System (RCCMS), Bhu-Naksha, Khasra, Online Mutation, Anti-Bhu-Mafia Portal and UP-SVAMITVA.

Digital Land has touched the lives of nearly 1 crore farmers on a daily basis. It has reduced the time taken in managing and maintaining records, increased accuracy and efficiency and enhanced safety of records maintained.

Apart from these benefits, it has increased the accessibility of all information related to land title / dispute or any other issue (whether the land is reserved for any specific purpose by the State Government or not including future plans like town planning, etc.) related to the land title to the citizens.

Salient features

- Generates a 16-digit unique code for each revenue plots
- Detects and blocks the fraudulent sale of lands belonging to non-transferable categories
- Fixes individual shares of Khatedars in Khataunis (RoRs)
- Relief funds and other benefits transferred directly into the bank accounts (DBT) of actual beneficiary
- SMS broadcasting to land owners

Other Key Initiatives

Manav Sampada

<https://ehrms.upsdc.gov.in>

eHRMS application was created as a product model to provide a comprehensive human resource management solution for government departments. Its aim is to assist in making the right decisions at the right time, with proper monitoring and manpower planning. This platform streamlines processes such as employee recruitment, postings, promotions, and transfers based on their respective skill sets.

The application has been integrated with the DDO module of the Finance Department, Government of Uttar Pradesh, and DIKSHA portal of Ministry of Human Resource Development, Government of India. An Android application mSthapana has also been developed for leave and service book management for state government employees.

As of now, over 13.8 lakh state government

employees from 83 state government departments are registered on the platform. Moreover, more than 13 lakh service books have been verified on the platform.

eOffice

eOffice aims to bring transparency and efficiency among inter and intra-government processes. It promotes accountability by increasing quality and speed in decision making. Further, it aims to promote innovation by releasing staff energy and time from unproductive procedures.

As of now, it has been implemented across following state offices and departments

- UP Secretariat
- 19 Directorates under Government of Uttar Pradesh
- UP Vidhan Sabha
- Dr. APJ Abdul Kalam University

In near future, eOffice support will be extended to other state government departments and offices including UP Legislative Council, Yamuna Expressway Development Authority, and University of Kanpur.

iRAD

Integrated Road Accident Database (iRAD) is an initiative of the Ministry of Road Transport and Highways, started with an objective to improve road safety in India by facilitating the collection and analysis of road accident data. The platform features a comprehensive database that stores and processes data on road accidents and provides tools to visualize and analyze the data to identify patterns and trends. The platform also includes cloud infrastructure, physical servers, and a helpdesk for user support, and also involves training stakeholders and users to ensure efficient use of the platform.

In Uttar Pradesh, iRAD was rolled out in two stages. In the first stage, it was rolled out in 16 districts and later in the second phase, it was rolled out in the remaining 59 districts. As of now, over 750 training sessions have been conducted by the State Centre for the success of the project.

ICJS

<https://icjs.gov.in/>

Interoperable Criminal Justice System (ICJS)

is designed to enable seamless information flow among various pillars of the justice system including eCourt, ePrison, eForensics, eProsecution, Fingerprint, and Women & Child Department (WCD), by achieving 'One Data Once Entry.'

It also functions as an interface for the various pillars of the Indian Judicial System (IJS) to perform national level searches of accused / criminals using a range of identifiers such as FIR No, CNR No, prison ID, etc. The platform also features a customizable national-level dashboard for analytics on various metrics.

As of now, NIC UP has implemented five out of seven major pillars of ICJS. These are eProsecution, eForensics, eCourts, ePrison, and NDAL-ALIS.

eHospital

eHospital is a comprehensive ICT solution for government hospitals that streamlines workflows and covers major functional areas such as patient care, laboratory services, document management, and human resources. It is a patient-centric system that captures details from registration to admission and treatment in wards, reducing the time and effort required to seek appointments with doctors in distant hospitals. It enables citizens to book online appointments in hospitals, making it easier for them to access healthcare services.

As of now, the State Centre has implemented the application in 48 hospitals with more than 4.4 crore patients in the state. Nearly, 40000 patients use this service on a daily basis.

eGranthalaya

eGranthalaya automates and networks government libraries with an integrated library management software, digital library module, cloud hosting, and a library portal. It transforms traditional libraries into e-Libraries with digital services and provides various online member services through a single window access system. Its latest iteration, eGranthalaya 4.0, is a cloud-ready application that provides a web-based solution with a centralized database for a cluster of libraries.

As of now, the State Centre has implemented the eGranthalaya software in more than 500 government libraries across Uttar Pradesh.



▲ Fig 2.6

Modules of ICJS



▲ Fig 2.7 Aapda Prahari App

UP RTI Online Portal

This portal enables any Indian citizen to file Right to Information (RTI) applications and first appeals online. It is exclusively designed to bring transparency in the system. RTI Online has two components.

- Online request and appeal filing system (Citizen Interface: <https://rtionline.up.gov.in>)
- RTI Request and Appeal Management System (Public Authority Interface: <https://rtionline.up.gov.in/RTIMIS>)

ePariksha UP

<https://pariksha.up.nic.in/>

ePariksha is an online examination platform developed by NIC UP to streamline the recruitment process for various government jobs and eliminate the need for paper-based examinations in the state. It offers a user-friendly interface and allows candidates to register, fill out their application forms, and pay examination fees online. The platform also provides various features such as mock tests, online tutorials, and practice tests to help candidates prepare for the exam. The web portal is complemented by an Android-based mobile application of the same name.

Nivesh Mitra

<https://niveshmitra.up.nic.in/>

Nivesh Mitra is a 'Single Window Portal' designed to facilitate entrepreneurs in obtaining various government clearances, licences, and NOCs required for setting up businesses in Uttar Pradesh, in accordance with the Business Reform Action Plan (BRAP) guidelines. As of now, 347 services of 27 departments are integrated. It offers a comprehensive and entirely digital solution, with no need for physical touch points throughout the process. It includes online application submission, payment, tracking and

monitoring of progress, approvals, and online access to approved certificates and NOCs.

Over the course of its existence, the system has granted over 3,74,613 licences / NOCs to approximately 4,09,627 registered enterprises who applied, all within the approved timelines.

eLottery

<https://upexciselottery.gov.in/>

eLottery System provides end-to-end process flow from application submission to the allotment of shops for Liquor and Bhang across 75 districts of the state. This initiative has not only infused the efficiency in allotment of liquor shops but has also eliminated any sort of corruption involved in the related process.

As of now, 56337 applications have been received for license, and out of which, the license has been granted to 28990.

mGovernance

Aapda Prahari

This app offers information about disaster relief schemes provided by the Government of Uttar Pradesh, allowing citizens to report disasters with photographs and location data, and receive relief payments via direct benefit transfer. The District officials can also upload details of shelter and relief camps to help allocate resources to beneficiaries.

eSathi

This mobile app allows citizens to apply for eDistrict services directly from their mobile phones. The app has been downloaded over 1 lakh times and processed over 5 lakh applications through mobile.

JAL

This mobile app geotags rural assets such as government hand pumps and borewells. It

monitors their status whether they are functional or not, monitoring their repair or rebore process. It aims to bring transparency in the water management system across the state.

mNirikshan

This mobile application is designed to enhance the efficiency of the public grievance redressal system by facilitating the transfer of complaints and providing real-time GPS-based grievance redressal. It assists the District Administration in monitoring the field activities of Lekhpal and field officers, by capturing the GPS location of field visits and images of the complainants / parties involved in the disputed land. This app aims to improve the quality of the public grievance redressal system and expedite the process.

Important Events Organised

- Provided technical support during the G20 Summit was organised by MeitY in Lucknow
- Participated in UP Global Investor Summit 2023 where NIC, DIC, STPI, and CDAC showcased their projects and products at MeitY pavillion

Accolades

- Digital India Award - 2022 (PLATINUM) for UP-MineMitra in 'Digital Initiatives for Ease of Doing Business' category
- National Awards for e-Governance 2022 (Gold) for UPMineMitra Excellence in Government Process Re-engineering Category
- State Award of Excellence (Digital Transformation) at CSI SIG eGovernance Awards 2021
- Award of Excellence (Project Category) for Jansunwai - Samadhan & Nivesh Mitra at SIG eGov Awards 2021
- Digital India Award 2020 (Silver Category) for Excellence in Digital Governance from Hon'ble President of India for State Food & Civil Supplies Project

Way Forward

The eGovernance initiatives that cover the entire spectrum of interfaces - G2G, G2C, G2B, G2E & G2S are bringing the vision of IT empowerment one step closer. Majority of these initiatives are aimed at bridging the digital divide and to extend the many potential benefits of ICT to people residing in remote and far-flung areas of the state, in particular, to improve their social, economic and cultural well-being of the state. National Informatics Centre, Uttar Pradesh is continuously striving to drive innovation for citizens and departments alike.

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