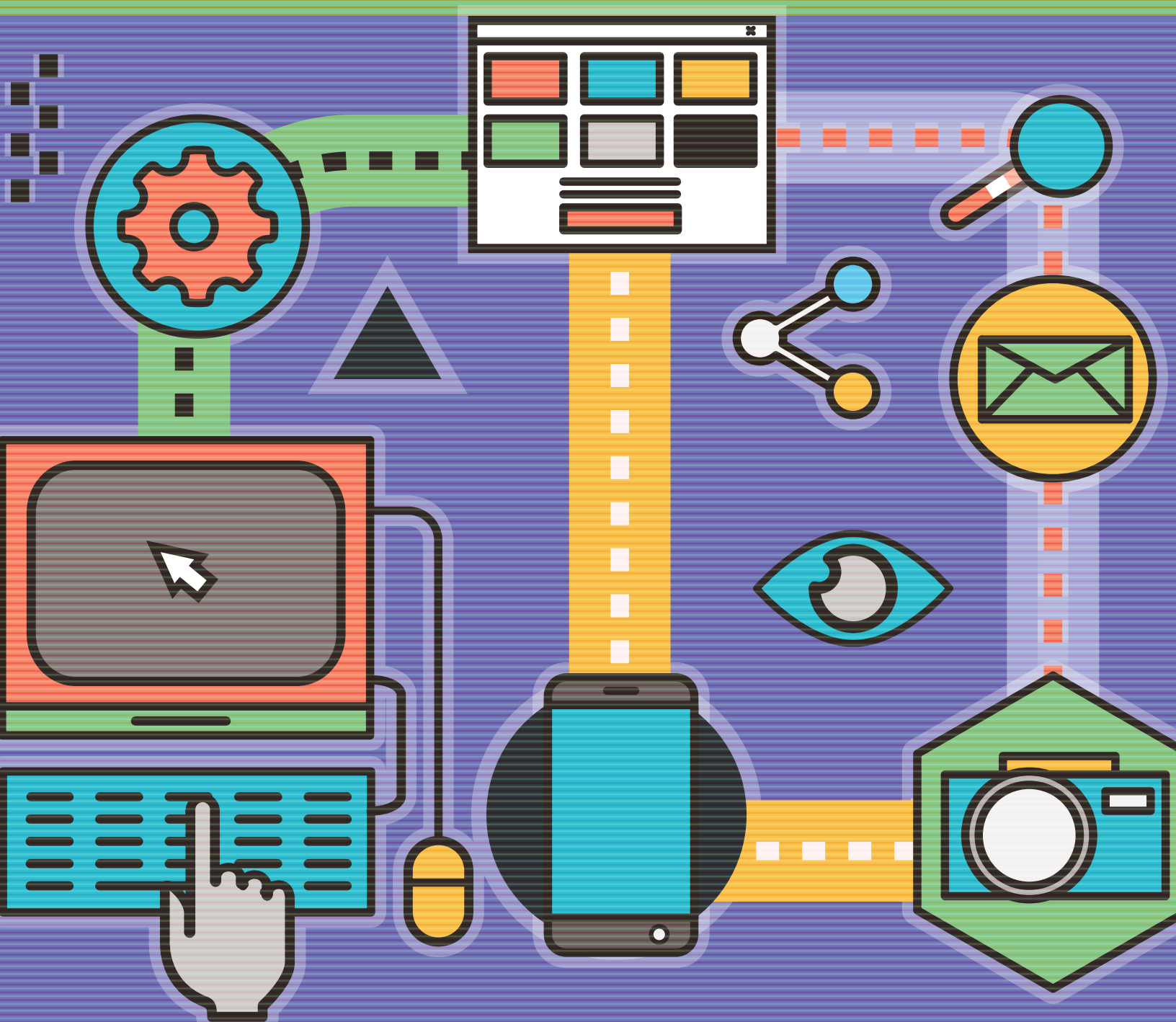


Informatics



- | Mann Ki Baat on IVRS
- | WAMSI- GIS Tool for encroachment detection
- | AEBAS implementation in Haryana
- | Cooperative Core Banking Solution
- | Smart Rourkela & Swachh Rourkela Apps
- | ICT advancements in Himachal Pradesh
- | Effective Vulnerability Management
- | Assam Secretariat e-Pass Application
- | CHANAKYA: Registration & Examination System

INFORMATICS

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EDITORIAL



There has been a tremendous increase in the use of mobile devices in India with subscribers crossing the one Billion mark in October 2015. With this rapid adoption and widespread use of mobile technology, it becomes imperative that mobile communications be utilized as a channel to provide access to public information and services to the citizens through cellular technologies and G2C applications.

M-Governance is therefore emerging as the next big wave for ICT use in the public sector, especially for rural and remote areas. Our Government has introduced a number of mobile Apps and many are in the process of development to improve delivery of public services and making it available anytime, anywhere. This Issue covers some of the citizen centric Apps developed by NIC such as ePass, Smart Rourkela & Swachh Rourkela and the App for Mahari Panchayat.

In the 'Technology Update' this time, we cover the Hon'ble Prime Minister's much popular programme 'Mann Ki Baat on IVRS' and Effective Vulnerability Management for Government web hosting.

Articles presented in 'eGov Products & Services' are ePass Application for Assam Secretariat, Cooperative Core Banking Solution (CCBS), AEBAS implementation in Haryana, Financial Accounting System (FAS) Telangana, WAMSI online system for encroachment detection and Chanakya, the Registration & Examination system.

'From the States' portrays the ICT excellence in Himachal Pradesh and the district Hamirpur has been covered in 'District Informatics' besides our regular sections 'Cyber Governance', 'News Updates' and 'Accolades'.

Hope you find this Issue useful. Happy reading.

EDITOR

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Dr. Aruna Sharma, IAS
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Department of Electronics & Information Technology
Ministry of Communications & IT
Government of India



It is my great pleasure to address you as the Secretary of Department of Electronics and Information Technology. I look forward to the fulfilling the DeitY's vision e-Development of India as the engine for transition into a developed nation and an empowered society. Digital India is one of the key initiatives that have been successfully addressing this vision and it would be our privilege to keep up the good work.

The success of Digital India lies not only in utilizing technology to transform the lives of citizens, but more importantly in the transformational outreach and subsequently the nature of transformational benefits the citizens receive from the projects that are rolled out. Digital India has and will continue to move forward with a holistic approach. 'Digital Infrastructure as a Utility to Every Citizen', one of the three coverage areas under Digital India that addresses digital inclusiveness is bridging this gap now faster than ever. It then becomes imperative that NIC being the premier ICT organization of the government keeps up its success rate in rolling out projects in the fields of e-Governance, e-Kranti, Global Awareness and envisaged Early Harvest programmes.

Moreover, NIC has an established record of adopting an approach where not only Greenfield initiatives are undertaken but also the ongoing schemes and initiatives are restructured with minimal cost to align them with the Digital India programme.

I wish you all the success and hope that your perseverance and zeal will continue to make Digital India live up to the expectations it has promised to deliver.

Dr. Aruna Sharma

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Mann Ki Baat on IVRS

Connecting To The Unreached

The Mann Ki Baat (MKB) on IVRS application developed by NIC connects the Hon'ble Prime Minister with the citizens telephonically. The MyGov cell of DeitY and NIC jointly facilitate this toll-free service, in which citizens get the opportunity to voice their opinions/suggestions through a 30 second message. Held during the last week of every month, this system allows 40 concurrent calls, enabling a large number of calls in a short span of time.



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Data reach through mobile apps, web etc. has low penetration in our country's rural population because of high input costs of mobile devices, low IT literacy, high data charges and low bandwidth besides challenges thereof. Penetration of combined mobile apps/smart phones & web related data is limited to semi urban areas which constitutes 15-18% of country's total population. PMO realized the potential of IVRS to reach this untended 82-85% population through a toll-free IVR Service for the Hon'ble Prime Minister's popular programme "Mann Ki Baat".

The toll-free IVRS number is **1800-11-7800** and this service provides the user to select their choice of language for communication, collect personal information such as name of the call-

er, place of residence and the State. Afterwards, the caller's message of 30 seconds duration is collected and a back-end team transcribes the audio and forwards it to PMO for selecting the most viable and suitable opinions, which are taken up for the fourth coming edition of Mann Ki Baat.

IVRS- AN OVERVIEW

Now let's get to know what an IVRS is all about. IVRS or Interactive Voice Response System is a technology that allows humans to interact with the computers through telephones using voice (Speech) Recognition or DTMF (Dual Tone Multiple Frequency) tones through telephone keypad. Voice recognition can reduce operational expenses by up to 30% and are faster as compared to collecting information from caller via DTMF tones. Initially known as Computer Telephony Integration (CTI), IVRS today has grown from mere DTMF inputs to the modern age speech recognition



Mann Ki Baat - connecting to the unreached

based on Hidden Markov Model. With an advent in better research, the technology improved with more CPU & RAM, and the systems could recognise caller independent speech for limited vocabularies. Today, the implementation is standardized under W3C in the VXML.

IVRS is now in place to answer trivial and more common issues, connecting to a human agent only to resolve complex queries or more personal interaction during business hours that were not covered by IVRS, thereby reducing cost, and improving quality of service with the overall customer experience. Primarily the interactions using dialogs are kept as simple as possible and the choices given to the caller are as few as 5 or 6, followed by collecting an input, processing it, and returning a result. One of the main reasons why the choices are so few in number is that the human mind does not register spoken inputs for more than 5-6 at a time. It is deployed for handling large call volumes. Since IVRS does not require human intervention, it is sometimes referred to as an automated attendant or Voice Response Unit (VRU) or Audio Response Unit (ARU) as well.

IVRS flow was earlier provided through proprietary coding with C++ interface for Dialogic hardware APIs, to the latest by web based VoiceXML (VXML), CCXML (Call Control XML), SRGS (Speech Recognition Grammar Specification) and SSML (Speech Synthesis Markup Language). The XML-web based systems allow central deployment of the IVRS flow control through any web application servers much like web pages. The database interaction is done by the more common ASP/JSP/PHP like programming environment. Introduction of Session Initiation Protocol (SIP) has made a giant leap for the IVRS, making it to be available on WAN and allowing video also for interaction on

mobile phones termed as IVVR (Interactive Voice and Video Response). Usage of full duplex video would help in identifying callers further by Iris scan, etc.

Call centres also use IVRS upfront to reduce the cost and answer normal queries and to queue callers using ACD (Automatic Call distributor), or request for a call back by registering the CLID (Caller Line identification) from the telephone network. CLID is also used for authenticating and sometimes prioritising callers. Besides CLID, account number, PIN or even Voice biometric are used for caller authentication. DNIS (dialed Number Information system) is used extensively when an IVRS has to handle multiple applications with individual numbers. Besides logging MIS data for audit, improvement performance reports, it can also interact with back-end databases & customer information systems. Sometimes whole call recording of IVRS-human agent interactions are stored for various purposes. When connected with a call centre, it triggers agent pop-ups showing caller details from CRM (Customer Relationship Management) software for the human agent to interact better, effectively and efficiently with the caller. IVRS can be used for collecting personal and sensitive details which the caller may not divulge easily to a human agent like drug usage, sexual behaviour, clinical details, etc. Outbound calls from IVRS are more configurable and intelligent than predictive dialing (sequential calling from a list and handing over calls to a human agent) and can detect network conditions like busy, no-answer, out-of-reach, FAX / answering machines tones, etc.

ABOUT VOICE RECOGNITION & SYNTHESIS

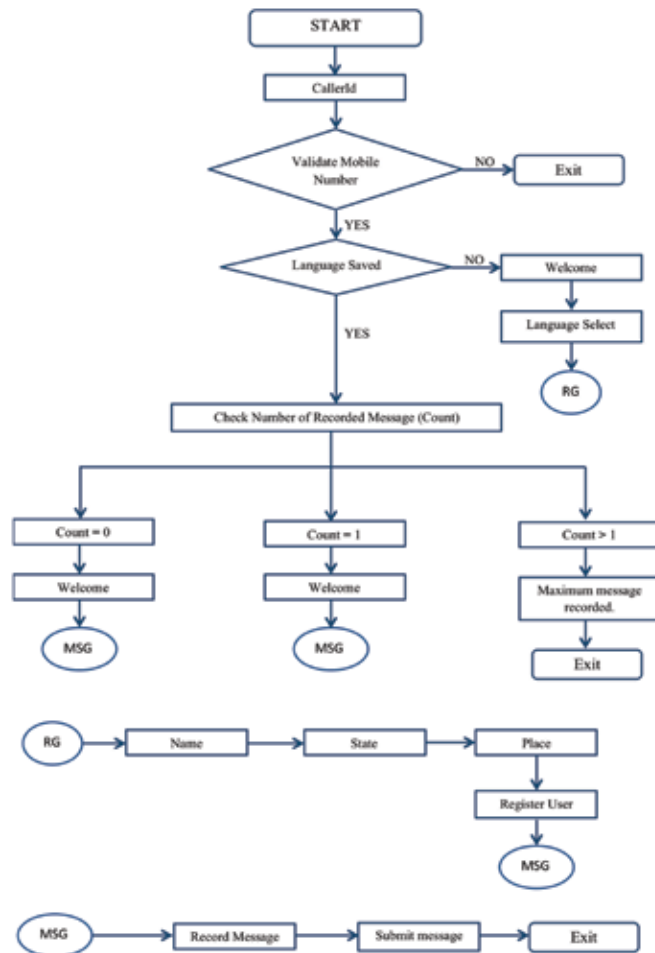
The two main flavours of voice recognition are Directed Dialogs and

Natural Language Dialogs. In Directed Dialogs, which are based on pre-defined grammar, a caller is asked specific questions in a manner that leads the user to give short expected answers. For example, a question is asked as “please tell your language choice. Say Hindi or English”. While in Natural Language Dialogs, which is based on statistically trained language models, it is expected that the user will respond in a manner that they’re talking to a fellow human. For example, we may simply ask, “What language would you like to continue in?”, and the user could probably respond as “Ok, I would like to converse in English please.”

The information is received from user through dialogs in steps by using pre-recorded audio prompts or by text through Text-To-Speech (TTS) engines which may be used for prompting dynamic text as from a database or email, weather information, etc. TTS is a computer generated synthesized speech which no longer is a robotic type voice, but with real voices of good artists’ speech in fragments which are concatenated and smoothened to generate more human like voice.

MANN KI BAAT ON IVRS – TECHNICAL DETAILS

Only two messages per user for each monthly MKB edition are allowed and restricted from a mobile phone. So caller ID based validation is done before presenting the language choice. For a registered caller, his/her initials opted language is used and no language option is asked for. All the prompts are played out in this language, else the caller is asked to select a language, currently Hindi or English, for further interaction. From the first time callers, personal data consist of name, place of residence and state is collected.



Flow diagram of Mann Ki Baat on IVRS

The whole call flow is built using VXML 2.1 with DTMF & Speech grammars made on SRGS, for the language and state name selections. When this service was first launched in December 2015, around 40% callers had difficulty in selecting the State from the 35 options using speech grammar. The grammar and corresponding prompts were tuned in the January edition to reduce the drop rate to less than 1%. This has been achieved by using intricate mechanisms available in the recognition.

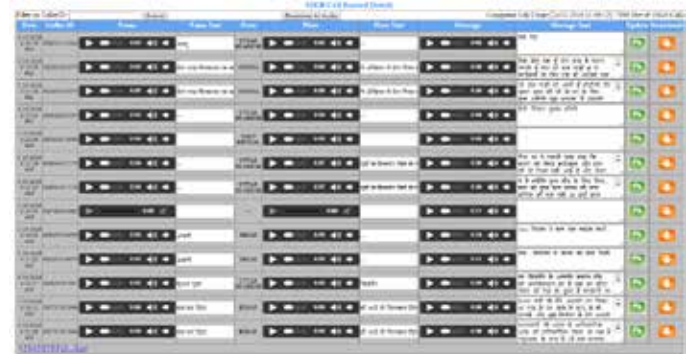
The audios recorded for the name, place of caller and message had to be transcribed to text, which was a huge task and was done on interpretation mode by volunteers. For this, the Nuance Transcription Engine for Hindi, on trial basis, was used to convert the audio to text, which reduced the human effort considerably.

MESSAGES DASHBOARD

In order to make it as a complete IVRS solution, the NIC-IVRS team has built an interim dashboard for interpreta-

tion, listening/ viewing of the messages until the final dashboard comes up from the MyGov NIC team.

This dashboard gives a paginated records view for the back-end team with the audio details and transcription available side-by-side with provision for editing and updating the re-



A screenshot of Messages Dashboard

ords. It also gives provision for downloading of individual and bulk records for offline editing. The dashboard has been built completely in-house, using .Net technology.

IVRS SESSIONS BY NIC- RECENT HIGHLIGHTS

The IVRS messages recorded by Sh. Dilip Chauhan, a visually impaired teacher from Gujarat was aired in the December 2015 episode of MKB, while those of celebrities like Viswanathan Anand and Prof. C.N.R Rao were included in the February 2016 edition.

Recent inbound/outbound calls for data collection used by NIC-IVRS

- Mann Ki Baat (1800-11-7800)
- Hon'ble Supreme Court case status information (24300601)
- Kailash Mansarovar Yatra with call back and help-desk feature (24300655)
- e-TV support IVRS with 24x7 call centre for international tourists (24300666)
- CEO Delhi Voter ID application status (24300660)
- Ministry of Minority Affairs details information with help-desk (**under process**)

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Effective Vulnerability Management For Government Web Hosting

The web applications, especially of government organizations are prone to malicious attacks intending defamation, service disruption and data corruption. Protection and management of its external facing infrastructure is thus critically important for securing applications and government data.



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External facing infrastructures often become the attack surface for malicious users. A web-hosting organization undertakes several steps to keep its infrastructure and services secure, ranging from deploying firewalls to patch management. Security testing process allows revealing the flaws in the security mechanisms of an information system that protect data and maintain functionality as intended. Security requirements include confidentiality, integrity, authentication, availability, authorization and non-repudiation. However, one step that is often overlooked is performing effective Vulnerability Management of its network resources, hosting infrastructure and application services.

The security posture of an organization can be assessed based on vulnerabilities. Even the most secure network is likely to have some unknown vulnerabilities. Vulnerability is a weakness in a program that can lead to an exploit and breach of the network or services by malicious users (attackers). Many cyber-attacks take advantage of basic, often unnoticed security vulnerabilities, such as poor patch management procedures, weak passwords, insecure configurations and non-compliance to sound security policies. This makes an effective Vulnerability Management a critical step in the effort to protect data.

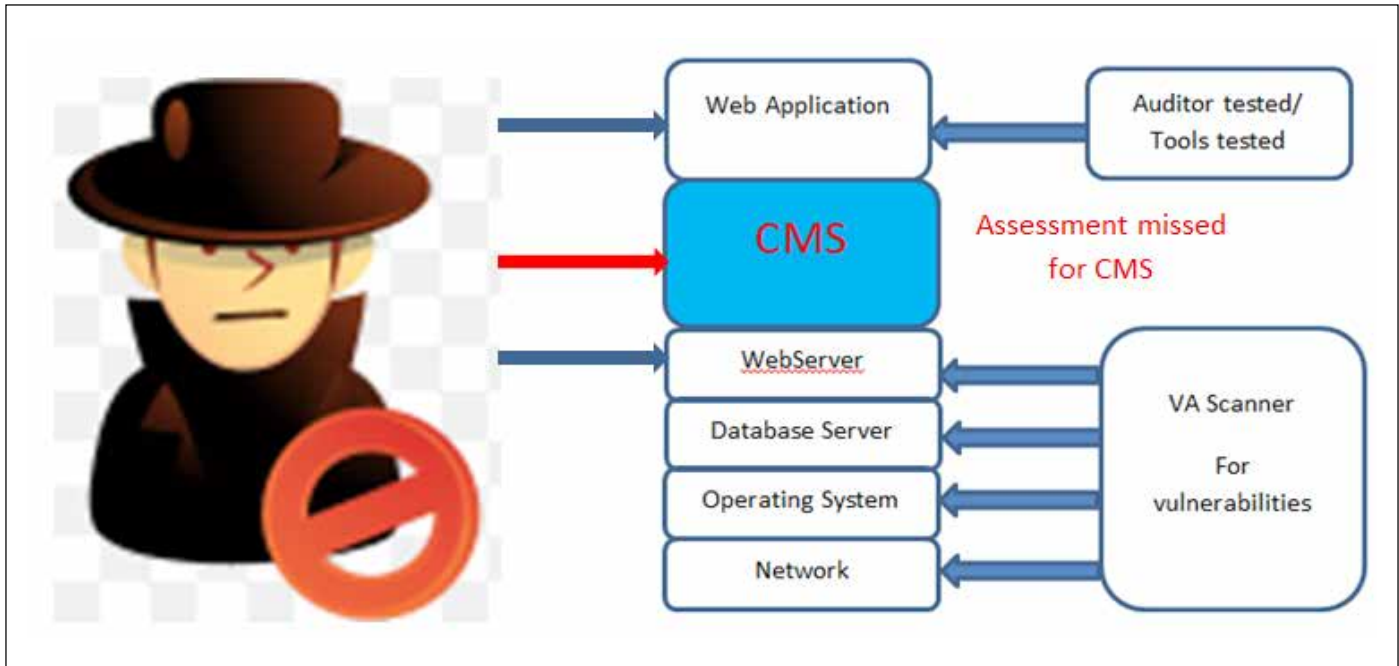
Regular vulnerability assessments are also essential because the security threats continually change and evolve. A public facing application might be secure today, but it could become completely vulnerable tomorrow. This is simply because an attacker would have discovered a previously unknown attack.

VULNERABILITY MANAGEMENT

Vulnerability Management is a security approach to find and mitigate known vulnerabilities by using the security scanners. This process provides in-depth evaluation of the information security posture, indicating weaknesses as well as providing the appropriate mitigation procedures required to either eliminate those weaknesses or reduce them to an acceptable level of risk.

Vulnerability assessment is the initial process of identifying and quantifying security vulnerabilities in an environment. Vulnerability Assessments follow these general steps :

- Catalog assets and resources in a system
- Manage assets to maintain vulnerabilities, this requires need to identify the resources attached to the network such as the IP Address database
- Assign quantifiable value and importance to the resources
- Identify the security vulnerabilities or potential threats to each resource using vulnerability scanners



- Validate and prioritize the VA scanner reported vulnerabilities that need to be fixed

VA scanner runs for defined network IPs to find the vulnerabilities. Mitigation or elimination of the vulnerabilities needs to be performed by the administrators. This process of scanning and mitigation should ideally be iterated till patches are fixed completely. In order to perform periodic assessment, this process is usually scheduled to assess the security posture at pre-defined intervals. VA scanners are useful tools for identifying hidden network and host vulnerabilities.

Host based scanners have direct access to the file system on the target host and thus the capability to find low level information on the system like exact version of software installed and services and configuration. These can therefore provide insight into user activities such as using easily guessable passwords or even no password. These can also detect signs that an attacker has already compromised a sys-

tem, including looking for suspicious file names, unexpected new system files or device files and unexpected privileged programs. Host-based scanners can also perform baseline (or file system) checks.

SECURITY OF CMS APPLICATIONS

In several applications, a layer above the web server, i.e., the Content Management System (CMS) is used in software building for rapid application development. CMS based applications follow the agile methodology to develop applications. These have gained popularity due to their ease of use to create applications. However, malicious adversaries often exploit vulnerabilities within the CMS installed on the web servers of organization. Also, the source code of most popular open source CMSs are publicly available, and can be easily targeted. Once the CMS has been compromised, the web server can be used as infrastructure to facilitate targeted intrusion attempts.

These CMSs may usually be con-

sidered low priority in assessment of the security posture of organization. Available VA Scanners usually run for different vulnerabilities of the entire web-stack, as one vulnerable component could compromise the security of the other layers. Vulnerability management scopes assessing of the operating system, webserver, database server, third-party applications or custom site-specific code scanning is not sufficient. The assessment of the CMS is more critical since applications and their usage are completely dependent on the CMS.

Once a CMS has been compromised, adversaries can exploit their access to:

- Obtain access to authenticated and privileged areas of the site.
- Upload malware to the webserver to facilitate remote access, Web-Shells etc.
- Inject malicious content into legitimate web pages. This could be used to server exploits or malware to visitors or to facilitate infrastructure access remotely.

CASE STUDY

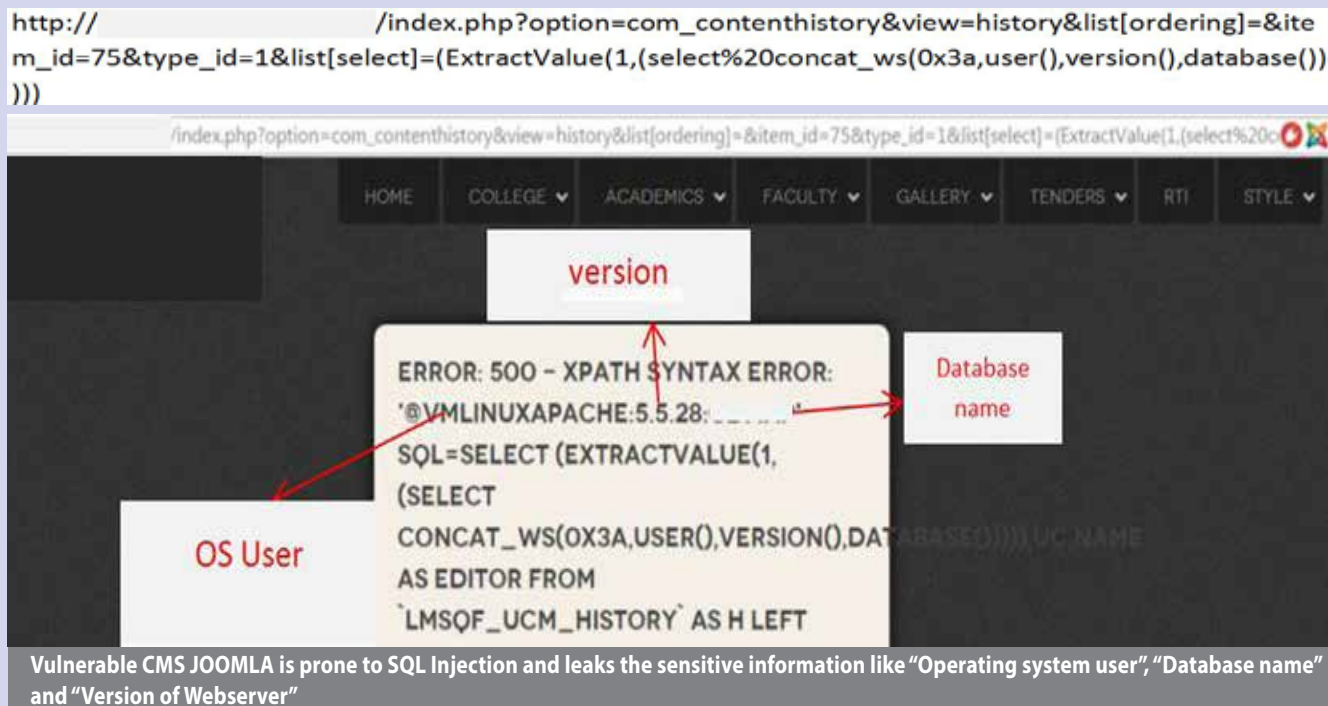
Application vulnerabilities in CMS infrastructure level - JOOMLA

JOOMLA is one of the popular CMS. Different versions of Joomla have different vulnerabilities. Some of these are 0-day vulnerabilities. 0-day attacks are exploits of newly discovered vulnerabilities, caused either before being disclosed to the public or before the necessary

patch for the exploit has been applied.

Consider the following example of hardened webserver and OS installed with Joomla CMS. Older versions of the Joomla CMS application have security issues in 'com_contenthistory' module.

The screenshot of the Joomla com_contenthistory shows vulnerability finding using SQL Injection.



This allows compromising all security layers built for these applications.

TESTING OF CMS WITHIN VA SCOPE

In the Vulnerability Management process, the VA Scanner for web applications / network also may not give good results for CMS based applications.

In most cases, the core CMS application may not be tested thoroughly for vulnerabilities. A Common cause of cyber intrusion is running outdated CMS software/untested CMS. These CMSs targeted by attackers lead to zero-day exploits. Vendors may test

for security vulnerabilities and release relevant patches, but this mitigation may take time, since patches need to be tested before going to production.

If a VA Scanner is not able to identify the vulnerable issues, then the security team performs manual security testing periodically and manages CMS security vulnerabilities using built vulnerability finding scripts.

CONCLUSION

As part of web hosting security vulnerability Management process, it is necessary to consider the CMS vulnerabilities checked periodically in order

to assess the organization's security posture.

It is also suggested to script the deployment of security tools so that all environments have baseline coverage and run regular vulnerability scans against the environments and remediate any vulnerability.

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Himachal Pradesh, the Abode of Gods

Adopting ICT In A Grand Way

Himachal Pradesh pioneers ahead by providing good governance to citizens by implementing important eGovernance initiatives. Besides the success of LokMitra Kendras at Panchayat level, many citizen centric services are being provided to the citizens at their doorstep. The NIC State Centre has played a crucial role in ICT development in the State since the last 28 years and majority of eGovernance applications of the State have been developed, implemented and are being maintained by NIC



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Himachal Pradesh meaning 'Snow-laden Region' or 'In the lap of Himalayas' is a beautiful State situated in the northern region of India which comprises of an area of 55,670 Sq. kms with population of about 68 lakh. This State is famous for its abundant natural beauty and is bordered by Jammu & Kashmir and Punjab in the north and west respectively, Haryana in the south-west and Uttarakhand in the south-east. The State is bordered by China in its east.

Himachal Pradesh is spread across valleys, and 90% of the population lives in villages and towns. However, the State has achieved 100% hygiene and successfully imposed environmental protection and tourism development, and it is the only State, which for bids

the use of polyethylene and tobacco products. Himachal Pradesh is one among the fastest growing States of India.

To provide good governance to the citizens, the State has been a pioneer in implementing eGovernance initiatives and with the success of LokMitra Kendras at Panchayat level, many citizen centric services are being provided to the citizens at their door-step. The NIC State Centre has played a crucial role over the last 28 years and majority of the eGovernance applications have been developed and are being maintained by NIC.

HIMBHOOMI (INTEGRATED LAND RECORDS COMPUTERISATION)

- **LRC (web-enablement):** The HimBhoomi software provides the copies of Record of Rights (Jamabandi, ShajraNasb) to citizens through the Internet and from



मुख्यपृष्ठ | राज्य विभाग | अभिलेख के बारे में | हिमाचल प्रदेश | फीडबैक

Disclaimer : The contents of this website are informative only and for the benefit of the public. Neither NIC nor Revenue Department, Himachal Pradesh is liable for an inadvertent or typing errors. This page also provides links to the websites of other Organizations. The content of these websites are responsibility of respective organisations. Himachal data is as available in the respective Field Computer Centres and is being made available through this web. The data updation is the exclusive responsibility of

HimBhoomi web interface

Citizen Service Centres (LokMitra Kendras). The software is being web-enabled and has been integrated with both registration of deeds and the maps (musavi/tatima).

- **Registration (HimRIS):** Himachal Pradesh Registration Information System has been implemented in all the Tehsils of the state. This application helps in carrying out registration of deeds including the deeds related to Land Records. The application has been integrated with Land records to reflect the transactions in Land Records once the deed is finally endorsed as well as uses the data available in Land Records while registering the deed. The application provides facility for automatic calculation of stamp duty and registration fee as well as capturing of photographs and scanning of registered deed.
- **Digitization of Maps:** The Bhunaksha software developed by NIC headquarters is being implemented for the spatial data. Both attribute and spatial data have been integrated to issue map copy along with Jamabandi using the existing web enabled solution. The solution has been hosted on the Meghraj cloud. Web enabled Bhunaksha application will be used by revenue officials to keep the spatial data up to date by incorporating map related transactions.

HIMKOSH (INTEGRATED FINANCE MANAGEMENT SYSTEM)

- **Budget Processing (eBudget):** It covers preparation of Budget Estimates, Supplementary Budget, Re-appropriation and List of Works.

- **Budget Distribution (eVitrn):** eVitrn is linked with eBudget. All the budget allocations are being carried out by all HODs to respective DDOs. Sanction Letters are being generated. HODs can also take surrender from DDOs. DDO can receive budget allocation from multiple HODs after mapping.
- **Integrated Online Treasury Information System (eHPOLITS):** Application has been developed and hosted on Cloud and will be operational in all treasuries/sub-treasuries from April 2016.
- **Cyber Treasury (eChallan):** Through eChallan, any one can deposit government fee or tax through online payment system. The system accepts all receipts as per Estimate of Receipts. Offline challan can also be generated. Application is integrated with departmental portals of various departments for receiving payments.
- **eSalary&eBills:** Application has been enhanced to generate any bill. It has integration with eVitrn, ePension and eHPOLITS.

Pending Salary/ Salary arrears can also be generated through the new system.

- **ePension:** All the State Civil Pensioners/Political pensioners who receive pension from State Treasuries are covered under this system and receive pension through ePension portal which covers pension revision/arrears. The application is integrated with Jeevan Pramaan for receiving Life certificates.
- **eStamps:** Web based centralized solution implemented in all treasuries and made a part of eHPOLITS. eStamps maintains the record of double lock system and keep record of sale of stamps to individual/vendors.
- **eNPS:** NPS application is developed for monitoring the employees contribution, preparation & compilation of employees contribution file as per format given by NSDL and withdrawal bill (Government Share) is prepared by DTA on the basis of consolidated report.
- **AGVLC:** Data generated in system is being shared with AGHP



Budget Suggestions Portal - Launch by Hon'ble Chief Minister of Himachal Pradesh

as per their format. One Login is provided to them for downloading files.

- **eKosh:** All the payments and expenditure data is in public domain, which is being used by various stakeholders for reconciliation and budget estimations etc.

EGAZETTE

Himachal Pradesh was the first State to publish the State Gazette online, which saves time and money. eGazette is now published on a daily basis and is digitally signed. The Gazette (<http://rajpatrahimachal.nic.in>) is searchable in free text format for the last 9 years (2,350 Gazettes covering more than 22,000 notifications).

EMPLOYMENT JOB PORTAL

The web-based software has been developed for the Employment exchanges, where the candidates seeking Government and private employment can register themselves for this purpose. The Job Portal allows private industries to register and search/hire candidates as per their requirement from this database of nearly 9 lakh registered candidates. The candidates can view the status of their registration, view vacancies and renew their job card online.

ELECTORAL ROLLS MANAGEMENT SYSTEM (ERMS)

The objective of the ERMS is to leverage the use of electoral rolls generated by the Election Commission of India during the Parliament and State Assembly elections for the purpose of Panchayat/Urban Local Bodies elections, thereby saving the duplicity in efforts, time and money invested by the State Election Commission. The ERMS software solution has been

developed for management of Electoral Rolls to conduct elections for Panchayats and Urban Local Bodies by the State Election Commission of Himachal Pradesh. The software has been able to re-generate the electoral rolls for the PRI/ULB elections successfully in the last two elections held in 2010-11 and 2015-16 by addition/deletion/ updation of ECI electors on yearly basis.

INTEGRATED ONLINE HOTELS RESERVATION SYSTEM (IOHRS)

The iOHRS is a hotels reservation system (<http://hptdc.nic.in/ohrs>) developed for the HP Tourism Development Corporation which is integrated with the Mobile App and major online travel portals through a channel partner. This system can be adopted by Corporation of any State with minor customization. The software has helped to increase the business of the HPTDC besides providing better services to citizens through Internet.

MANAVSAMPADA (EHRMS)

This software takes care of all human

resource management requirements of all employees of a State. The software is hosted on the National cloud (<http://ehrms.nic.in>) and users can onboard the software by filling a form. The complete record of the employees can be captured in the software to generate the eService book, which is further kept updated through electronic transactions related to transfers, training, leave, qualifications etc. The Pension papers can be generated through the software by fetching data from the eSalary system, as being done in HP. The replication of software is in progress in the States of Jharkhand, Maharashtra, Punjab, Uttar Pradesh.

SWAYAMSIDHAM (EDUCATION PORTAL)

This portal at (<http://rmsahimachal.nic.in>) provides an online interface for teachers and students to train them in enhancing the quality of education in classes 9th to 12th by making all kinds of resources available on the Portal and enriching this content by participative contribution. The objective has been to make the schools self-reliant, self-supportive, self-accountable and





A busy day at Sugam Centre of Shimla

techno-friendly. It will establish standards for teaching-learning, assessment, school leadership and management. This will help to monitor on a continuous basis the change in learning level of students and thus making the schools self-accountable.

WORKS MIS

The Works MIS software is a web-enabled solution for covering the 14 functions of Irrigation and Public Health Department. It has been developed as a complete solution to not only automate the functioning of the entire Department, but also to provide the decision makers with sufficient online information to provide better services to citizens through proper and timely execution of water supply and irrigation schemes in the State. The software is workflow based and is capable of generating all accounting and inventory reports in real time mode. The software takes base data of schemes from the State Budget database and the planners are able to monitor these schemes through eSamsiksh, a linked software.



MISCELLANEOUS APPLICATIONS

A number of useful applications for the following work areas have been developed and implemented:

- Online Permits for visiting Rohtang Pass (in Kullu District) as per direction of the Nation-

al Green Tribunal (NGT) <http://hpkullu.nic.in>

- Sealed and Restricted Road permits in Shimla city
- Telephone Directory and Billing System
- Single window interface for setting up industries in the State under ease of doing business
- JailVaarta- video conferencing of prisoners with their relatives
- REFNIC/ CM-REFNIC for mon-

eSalary			App enables all employees of the State Government to view their monthly salary and up-to-date GPF/CPF/NPS information. Detailed salary break-up for last three years available.
ePension			The State Government pensioners can view their monthly and yearly pension information break-up by entering their PPO Account number and Name.
HP Telestroke			A useful App for stroke patients to take precautions and get medical attention in the best possible manner. The doctors and ambulance staff also use this app.
Court Case Status			Search HP High Court cases based on party, case number, lawyer and store case information locally. Auto-alerts whenever the cases is listed for admission, hearing, orders, decision etc.
HPTDC			Tourism app for HPTDC, covering the complete website information in off-line mode and feature to check room availability/ booking etc.
MyDiarY			Daily engagements, names, phone, schemes, booking appointments with officers at Secretariat, Deputy Commissioner level.
X.10 Card			A useful app for candidates registered in employment exchanges for viewing their registered status and to get alerts about vacancies.
eHRMS			The complete Service Record of State Government employees is accessible and stored on smart phones for reference and regular updation.
eTransfers			Online transfer orders of major Departments that issue these orders in soft copy format only.
HP Phones			Free text, reverse search based telephone directory of the Government containing more than 8,000 telephone numbers of all Departments.
uHimachal/ HP IPR/ eGazette			  These Apps bring latest updates related to Himachal Pradesh portal, Press releases and Gazette notifications.

itoring the processing and movement of references/PUCs/files

- A repository of all State Government forms at <http://himachal-forms.nic.in>
- Digitization of Ration Cards under the ePDS program

MOBILE APPS

Realising the increased usage and potential of smart phones, 18 Mobile Apps have been developed under Android, Windows and IOS platform for citizens, businesses and employees. These are being used extensively and are receiving good feedback from citizens. Based on feedback, enhancements have also been carried out in these Apps. All the Apps are available on Apple App Store/Google Play-Store/ Windows App Store and are accessible from <http://himachal.nic.in/mobileapps>. These Apps are developed in such a manner that they store relevant data on the mobile phone and the users can view this data even without Internet connectivity. Some of the popular Apps are listed below:

WEBSITE DESIGN, DEVELOPMENT & HOSTING

The State Government web-portal (<http://himachal.nic.in>) has been designed by NIC and is being maintained over the years. The portal consists of about 80 individual websites and content is hyper-linked to keep it a single point of information dissemination. The web-portal is GIGW compliant and all websites are security audited. All these websites are hosted on the NIC cloud, Meghraj and Himachal Pradesh is the first State to accomplish this task of cloud hosting. The web-portal has also won the National eGovernance and Web-Ratna awards.

NICNET/NKN

The NICNET/NKN provides Internet connectivity to the Governor Secretariat, Chief Minister Office, Vidhan Sabha, High Court, HP Secretariat, CGO complex Shimla, HIMSWAN, State Data Centre and the 12 Deputy Commissioner offices. The Video conference facility has been provided in all these offices and 4 tribal sub-divisions (Kaza, Pooh, Pangi and Bharmour) by setting up 24 VC studios. The VC set up of NIC is integrated

with HIMSWAN to provide VC facility upto Block level covering all sub-divisions and blocks. A total of 22 Educational/Research Institutes have been connected to NKN.

STATE LEVEL INITIATIVES BY NIC HP DISTRICTS

In Himachal Pradesh, the NIC District Units have also been assigned State level projects for development and coordination in the State. These projects are:

- **Transport:** The issuance of driving licenses (Sarathi) and registration of vehicles (Vahan) are coordinated by the NIC Kangra and all interaction with the Central NIC team is done by the Project Coordinator after getting feedback from all the DIOs. HP is the first State to replicate web-enabled Saarthi in 40+ RLA/RTOs by porting the existing data and offering online services to citizens.
- **The Schemes MIS software** has been developed by the NIC Mandi and implemented in the State for sanctioning and monitoring of all developmental works under the Plan head.
- **The Hot Diary Tracking System (HDTS)**, developed by NIC Hamirpur, is a system for monitoring of important communications at the Deputy Commissioner level by scanning these and forwarding electronically to field functionaries for necessary action. The software has been replicated in Governor Secretariat too.
- The NIC Bilaspur designs and develops the CMS based websites in Hindi and English. The Governor House and Hindi Rajbhasha bilingual websites have recently been developed.



Launch of Mobile App of High Court by Hon'ble Chief Justice of HP High Court

- The NIC Shimla is coordinating the IVFRT, MGNREGA and AGMARKNET National projects in State and has received appreciation from the Ministry of Home, GoI for successful implementation of the IVFRT project in State.
- The scanning of old land records is being coordinated by the NIC Una through NICSi empanelled agency for creating a document management system for the record dating back to the year 1865.
- The development of standard citizen services under the **Service Plus framework** has been assigned to the NIC Districts of Chamba and Sirmour and they have developed a system for applying and issuance of certificates to the Nursing Institutes.
- All Districts actively support the election process for both the ECI and PRI/ ULB elections for Lok Sabha, Assembly, Panchayati Raj Institutes/Urban Local Bodies in web-cast, randomization of polling parties, compilation of results and other required technical support.

DIGITAL INDIA PROGRAM AND NATIONAL LEVEL PROJECTS

Under the Digital India program, the State was among first States to implement the Aadhaar Enabled Biometric Attendance System (AEBAS) and Jeewan Praman, digital life certificates and Central/State Government pensioners. During the Digital India week, all officers of NIC contributed in creating mass awareness among citizens and launching various online citizen services. The State was award-



Award winners at National eGovernance Award 2015 ceremony. iOHRs project received Gold

ed the 2nd prize in making online contributions during the Digital India week. The national level projects implemented in the State are eProcurement, MNREGA, ePRIsuite, IVFRT, NADAL, NADRS etc.

AWARDS

Various projects of NIC Himachal Pradesh have won accolades at National and International level. More than 20 prestigious Awards have been won by NIC HP including, 10 National eGovernance Awards, 4 CSI-NihilenteGovernance Awards, 3 ManthaneGovernance Awards, 3 Web-Ratna Awards and Stockholm Diploma. The Awards won during the year 2015-16 include the following:

- National eGovernance Award-Gold Icon for Integrated Online Hotels Reservation system
- 2nd Best State in the country during the Digital India Week activities
- 2 CSI Nihilent eGovernance

Awards for HimKosh and HimBhoomi software

- Skoch Award of eGovernance for Manav Sampada (10 other projects were awarded the Order of Merit)
- Swaym Sidham- Finalist in Manthan Awards.
- State Civil Services Awards for ERMS (2014) and eVidhan (2015).
- Two Papers on “eGovernance-Time to Transform and Make it Participative” and “Decade of eGovernance in Himachal Pradesh Transport Department- Towards Digital India and Way Ahead”, published in the Compendium of Papers during the 19th National Conference on eGovernance

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Hamirpur District

Splendours Of ICT In The Veer Bhoomi Of Himachal

The NIC District Unit of Hamirpur District was setup in 1989 and the unit has helped in making tremendous strides towards empowering district administration with ICT tools, spreading IT culture besides the development and implementation of numerous ICT applications. Popularly known as Veer Bhoomi, This is the most literate district of the State, well connected by roads from all sides.



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Famous for the child saint shrine Shri Baba Balak Nath Temple Trust Deoth Sidh, the district Hamirpur lies in the South-West part of Himachal Pradesh and constitute the central micro region of the State. Tract is hilly, covered by Shivalik Range situated between 76° 18' to 76° 44' East longitudes and 31° 25' to 31° 52' North latitude. The elevation varies from 400 meters to 1100 meters. The history of district Hamirpur is intimately associated with the Katoch dynasty, which ruled the region between Ravi and Satluj known as 'Trigerta'. Hamirpur derived its name from Raja Hamir Chand, who ruled this area from 1700 AD to 1740 AD.

The most literate district of the State and well connected by roads from all

sides, Hamirpur shares its geographical boundaries with Bilaspur, Mandi, Kangra and Una districts. Majority of the people serve in the defence services, thus popularly known as "Veer Bhoomi".

District NIC unit setup in 1989 has helped in making tremendous strides towards empowering district administration with IT tools, spreading IT culture and development/implementation of numerous IT applications.

RECENT ICT INITIATIVES

• District Website

The official website of District Hamirpur (<http://hphamirpur.nic.in>), designed & developed as a one-point-source to provide information about history, fact-file, culture, temples, accessibility, tourist places and citizen services etc.

• Jeevan Pramaan

Life Certificates for Central and



Homepage of the Hamirpur District website

State Government Pensioners, application has been implemented at DPDO and all the treasury offices in the district. Awareness camps were organised and Life Certificates issued to the pensioners

- **AEBAS** - Aadhaar Enabled Biometric Attendance System has been implemented at various central & state government offices

- **Digital Locker**

To preserve the documents in digital form and to provide a secure access to the government issued documents, awareness camps were organised and Digital Locker accounts of the general public were created

- **NDAL**

National Database of Arms Licenses. Implemented for generation of Unique Identification Number for the Arms Licenses and old data of Shastr SW has been ported to NDAL

- **Sarathi Ver. 4.0**

Web based system for issuance of Learner Licenses, Permanent Driving Licenses has been implemented at all the Registration & Licensing Authorities in the district

- **IVFRT**

Immigration, Visa and Foreigner's Registration & Tracking system has been implemented at the FRO-cum-SP Office. Trainings to institutes and hoteliers have been provided for registration of foreign nationals under c-Form and s-Form modules

computerize Land Records and generation of various registers and related MIS reports. General public can also take the copy of their Record of Rights from Lok Mitra Kendras (CSCs)

- **HimRIS:** This software is used for registration of land deeds in integration with the HimBhoomi SW where mutation data is transferred automatically

- **Circle Rates:** Online system for compilation and publishing of the land rates by District Collector to facilitate the general public for payment of the stamp duty for land deeds

- **Lokpraman Patra:** Web based software being used for issuance of numerous types of certificates to be issued by all the Executive Magistrates

- **Himkosh** - Integrated Financial Management System has been implemented at district treasury and all the sub treasuries. The key modules include: **e-Salary** for preparation of the Salary Bills of all the state government employees in the district. **e-Pension** is an on-line pension processing and

disbursement system. **e-Challan** is an online system for HP Government receipts. **HPNPS** - an online Pension MIS under New Pension Scheme. **eKosh:** Online system implemented at all the treasuries for bill submission, bill processing, budget allocation till ECS based payment to the beneficiary account. **e-Stamp:** Online system for receipt and issuance of Stamp Papers

- **Transport Computerisation: Vahan-** a system for all the services related to registration of vehicles, issuance of permits, collection of token tax as well as various other vehicle transactions. **Sarathi-** a system for issuance of Conductor Licenses, Driving Licenses (Learner and Permanent). System is also integrated with STALL, a Screen Test Aid for Learner Licenses. Daily data is ported to the National and State Registers

- **Election:** Implemented DISE (District Information System for Elections) system for entry and random deployment of polling staff, counting staff and EVMs. ICT support is extended for result compilation & dissemination to

MAJOR PROJECTS IMPLEMENTED IN THE DISTRICT

- **HimBhoomi:** Implemented at all tehsils, this system is used to



NIC has implemented Vahan and Sarathi as a part of Transport Computerisation in Hamirpur



Conferring of the SKOCH- Order of Merit Award 2015 for Hot Dak Tracking System developed by NIC Hamirpur

ECI for elections. Facility provided for electoral roll management using ERMS for conduct of PRI/ULB Elections

- **Courts:** Case Information System - a NeGP MMP for computerization of District and Taluka Courts for management of cause lists, case status, court orders / judgements etc.
- **eKalyan:** Software for entry of applications till the disbursement of Social Justice and Welfare pensions through Bank Accounts, MOs and Post Office Accounts
- **Manav Sampada:** A web based human resource management system for management of service books, transfers, APRs and promotions
- **eSamadhan:** Workflow based, role based online generic system implemented for all the departments for redressal of public grievances/demands
- **Shastr:** Online system for issuance, renewal, endorsement of Arms Licenses at district and sub division level

OTHER PROJECTS

- **eRojgar** - Employment Exchange Management System including Job Portal
- **ePahchan** - Online System for issuance of Disability and Senior Citizen Identity Cards
- **MGNREGA** - Online SW is implemented in DRDA, Blocks and all the Gram Panchayats for job cards, master roll generation and online transfer of aadhaar enabled payments
- **DEAS** - for maintenance of accounts on Double Entry Accounting System at blocks
- **SchemesMIS** - System for sanctioning of funds, monitoring of physical/ financial progress of various developmental schemes
- **IDSP** - Integrated Disease Surveillance Programme, a web based system to help in collecting important statistical data to check the spread of diseases by early warning signals
- **ePRI** - Panchayat Enterprise Suite implemented down to the Gram

Panchayat level, it is a complete suite for the management of three tier structure of the PRI activities

- **eProcurement** - Online system for computerisation of the tendering and bidding process including evaluation till the award of contract

NICNET & VIDEO CONFERENCING

NIC district centre is connected with NIC HP State Centre over 1Gbps leased line with 34 Mbps backup link. The NKN connectivity is further extended to the HP Technical University and NIT Hamirpur. Video Conferencing services are being provided to all the government offices.

DISTRICT HIGHLIGHTS

Hot Dak Tracking System for tracking of high priority 'dak', a locally developed system by district NIC Centre has been implemented at Raj Bhawan Himachal Pradesh and other Deputy Commissioner offices in the state. Consultancy and ICT support has been provided to the district administration for website designing and computerisation of Shri Baba Balak Nath Temple Trust Deoth Sidh. District Hamirpur has received Skoch-Order-of-Merit Award-2015 for Hot Dak Tracking System. District administration has appreciated the support and work done by the NIC District Centre during Lok Sabha Elections and recently concluded ULB & PRI Elections.

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Assam Secretariat e-Pass Application

A Smart Secretariat Initiative

e-Pass, a G2C and G2G service is clever initiative of Secretariat Administrative Department which has been successfully implemented, with the support of SeMT. The application enables efficient and convenient way of issuing various passes to visitors of Assam Secretariat. Citizens can apply for online passes 5 days prior to their visit and the passes can be collected from the security gate itself.



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Every working day, hundreds of visitors are required to enter the Assam Secretariat Complex in Guwahati for visiting various sections of the Administration or to meet their representatives. Since the Secretariat Complex is a high security area, visitors are required to obtain passes for their entry. Issuance of passes manually has been a cumbersome process, which resulted in visitors waiting in long queues. In addition, it has been a difficult task to keep proper track of such large number of visitors every day, which raised security concerns.

The Assam Secretariat e-Pass Application, a G2C and G2G service is a smart initiative of Secretariat Admin-

istrative Department (SAD) has been successfully implemented with the support of SeMT. The application enables efficient and convenient way of issuing various passes to visitors to the Assam Secretariat. The Application has been developed by NIC in a short span (two weeks) and consists of a number of salient features as listed below:

- 1. Visitors Entry Pass** - with barcode of pass number and date of visit is issued to a visitor after obtaining her/his details. A visitor who applies for entry pass online through web or using the android mobile application will receive an SMS at his/her mobile phone, which contains a random number and the date of visit. The Entry Pass can be collected on presenting the received SMS to the security officials of the designated location at the Secretariat gates.

The screenshot displays the 'GOVERNMENT OF ASSAM ASSAM SECRETARIAT e-PASS' web application. The interface includes a navigation bar with options like 'Status of Temp Pass', 'Status of Car Pass', 'Print Car Pass', 'Pending Car Pass', 'Unlock Pass', 'Change Password', 'Database Backup', and 'Logout'. The main content area shows a 'Temporary Pass for Non-Official' with the following details:

Application Type :	Non	Applied Date :	10/10/2015
Temporary Pass Application No. :	10/10/2015		
Name :	Bismit Kalita		
Address :	Baruah, Guwahati-781004		
Mobile No. :	9436727307		
Purpose of Visit :	Official		
Department to Visit :	Animal Husbandry and Veterinary		
Valid for :	3 month(s)		

Below the details, there is a section for 'Accepted' and 'Rejected' status, and a 'Barcode' area. A small photograph of the applicant is visible on the right side of the pass details.

Screen shot of temporary pass displaying photograph captured through webcam



Security personnel scanning bar code for validating visitor entry

2. **Special Entry Pass** - is for officials of various departments visiting the Secretariat. Once applied, an SMS comprising of pass number and the date of visit is sent to the official. The visiting Official can collect the Special Entry Pass at the Security Gate by displaying the SMS received.
3. **Temporary Pass to Contractual Workers and Employees from Departments outside the Sec-**

retariat - are applied for/from the departments within the Secretariat. The Deputy Secretary (SAD) is authorized to approve or reject the request for temporary pass after verifying the details. If approved, the application allows the snapshot of the person to be taken through Webcam and the pass is printed and issued.

4. **Car Pass** - Applied for/from departments within the Secretariat,

this Pass require uploading of relevant documents to the system. Each pass undergoes a process of approval by the Deputy Secretary (SAD) and Security-in-charge of the Secretariat. At the time of printing the approved pass, an SMS is sent to receive the pass at SAD. In case the pass is rejected, an SMS is sent with the reason of rejection.

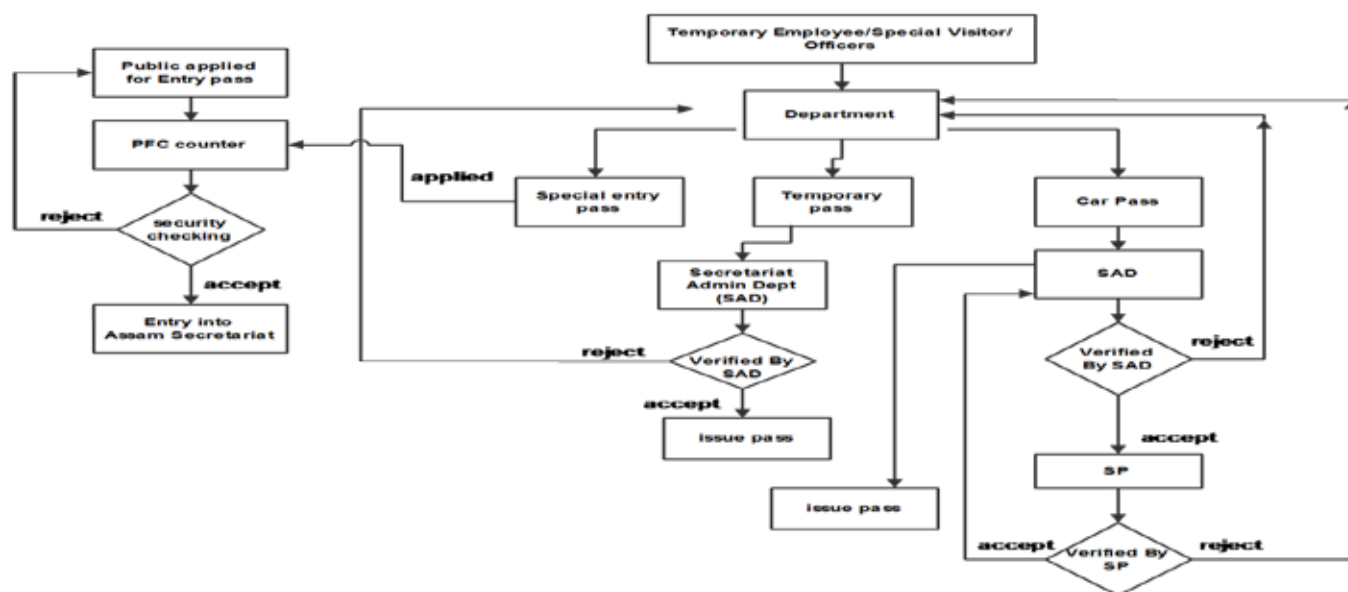
SECURITY

- For verifying and to validate the entry of a visitor, the security personnel at the gate scan the bar code on the entry pass. The pass number, date, mobile number, name and department to be visited are thus displayed on her/his monitor screen.
- The Security Personnel can check the authenticity of car pass by entering RC number of the vehicle in the car pass mobile app.

MONITORING

The SAD Administration can monitor:

1. The daily flow of visitors



Assam Secretariat e-Pass Application data flow diagram



Screen displaying department-wise visitor data on the monitoring report

2. Pie chart depicting flow of visitors; department-wise and district-wise
3. Department-wise issue of car passes, temporary passes and special entry passes
4. Frequent visitors

THE SET UP

The entry passes to the visitors are issued from 10 counters of the Public Facilitation Centre (PFC) at the Secretariat. Each centre is equipped with

a client PC and a thermal printer. A counter at the Security Gate No 1 is also equipped with a client PC and a thermal printer to issue online Entry Passes and Special Entry Passes. Two counters at the Security Gate No 2 are equipped with a client PC and a barcode scanner each for reading the barcode to ensure the validity of passes.

THE IMPACT

Prior to implementation of the Application, no proper mechanism to keep

track of visitors was available. With its implementation, various reports are also provided to the Administration such as daily count of visitors, most visited departments and the district from where the highest number of citizens has visited the Secretariat. The validity of the passes is ensured by the system thus curbing counterfeit passes. Quick capturing of the barcode data using the barcode scanner also reduces the long queues at the Security gate. A citizen can apply for online pass 5 days prior to his/her visit and the pass can be collected from the security gate itself.

BARCODE IN MOBILE APP

Development of barcode integration to the mobile app is underway. The security personnel can scan the barcode on the visitor's mobile screen instead of issuing printed passes. On the visitor's subsequent entry to the Secretariat, he/she needs to only inform their mobile numbers at the PFC counters. The details recorded on their first entry are fetched and the pass can be issued instantly with minimum changes, if necessary. This reduces time and effort to prepare entry pass.

Ensuring the genuineness of car passes through mobile app enables the security to detect car passes obtained fraudulently. SAD plans to outsource this application shortly for implementation and maintenance of hardware in the Secretariat. Outsourcing this application will not only generate employment but will also contribute to economic sustainability of the project.



e-Pass application counter at the Public Facilitation Centre of Assam Secretariat

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NIC's Cooperative Core Banking Solution

Rural Banking Made Closer

The CCBS, developed by NIC is a key lever for financial inclusion support to the rural population through DBT, MGNREGA Payments, scholarships, inclusion of various schemes such as PMJDY etc. CCBS facilitates easy monitoring of fund disbursement to the targeted beneficiaries account and maintains updated position of funds.



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The Government of India and its Reserve Bank focus on financial inclusion as the foundation for inclusive growth. Two third of Indian population lives in the rural sector and a majority of them are not part of the mainstream banking through this population contributes immensely to our country's economy. Thus, a need was felt to have a systemic approach to take advantage of the technology advancements to enhance effectiveness of rural cooperative credit structures. This is in particular to the delivery of payments and credits to rural citizens on various social sector schemes those have led to the development of Cooperative Core Banking Solution (CCBS).

National Informatics Centre has taken up this task and developed this System with an objective of bringing banking services closer to rural masses.

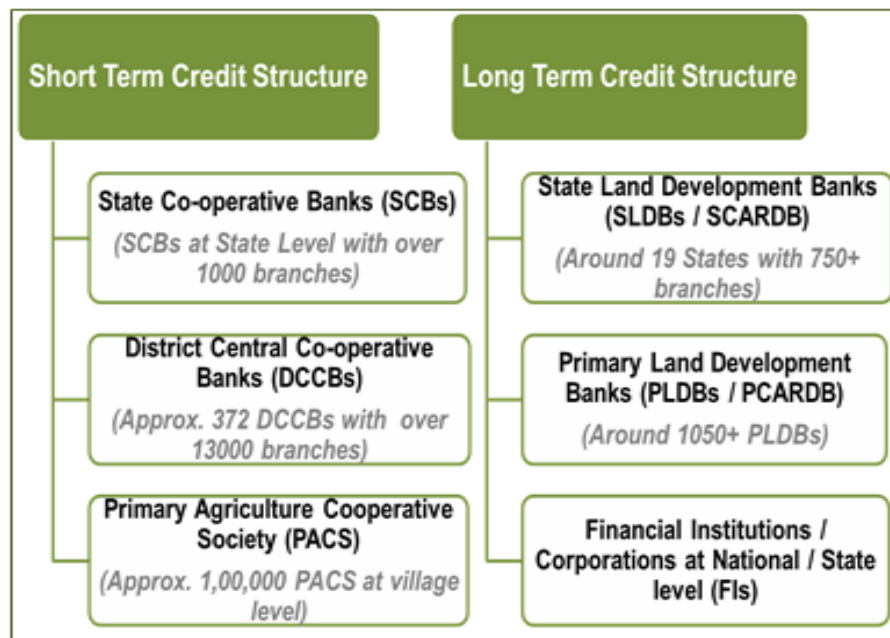
COOPERATIVE BANKS- AN OVERVIEW

In India, Cooperative banks have been operational since more than a century now and are considered among the important financial institutions in the country. Cooperative banks play a vital role in rural financing and micro financing. These banks in India are registered under the Co-operative Societies Act and are regulated by Reserve Bank of India.

Cooperative Credit Structure prevalent in India is bifurcated into Short Term Cooperative Credit Structure (STCCS) & the Long Term Cooperative Credit Structure (LTCCS). The



Web portal homepage of CCBS



Cooperative Credit Structure in India

STCCS is a 3 tier structure comprising the State Cooperative Banks (SCBs), District Central Co-operative Banks (DCCBs) & Primary Agriculture Co-operative Society (PACS). The LTCCS is a 2-tier structure consisting of State Land Development Banks (SLDBs / SCARDB) & Primary Land Development Banks (PLDBs / PCARDB) &

Financial Institutions/Corporation at National/State level (FIs).

COOPERATIVE CORE BANKING SOLUTION (CCBS)

To overcome the challenges faced by cooperative banks and to make financial inclusion a reality, the National Informatics Centre has

developed this web based Banking Software and has been offered as 'Software as a Service' (SaaS) to the banks. Hosted at the National Data Centre of NIC, the CCBS software, as a product has been customized for Short Term as well as Long Term credit structure.

The CCBS, developed by NIC is a key lever for financial inclusion support to the rural population through DBT, MGNREGA Payments, Scholarships, inclusion of various schemes like PMJDY etc. It facilitates easy monitoring of fund disbursement to the targeted beneficiaries of their accounts and maintains the updated position of fund.

TECHNICAL ARCHITECTURE

CCBS application is hosted at the NIC's Data Centre. Following is the dataflow of the system:

TECHNOLOGY USED

- Technology:** Microsoft .net Framework 4.5 with WCF
- Database Server:** Microsoft SQL Server 2012 Enterprise Edition
- Web Server:** Internet Information Services Manager 8.0

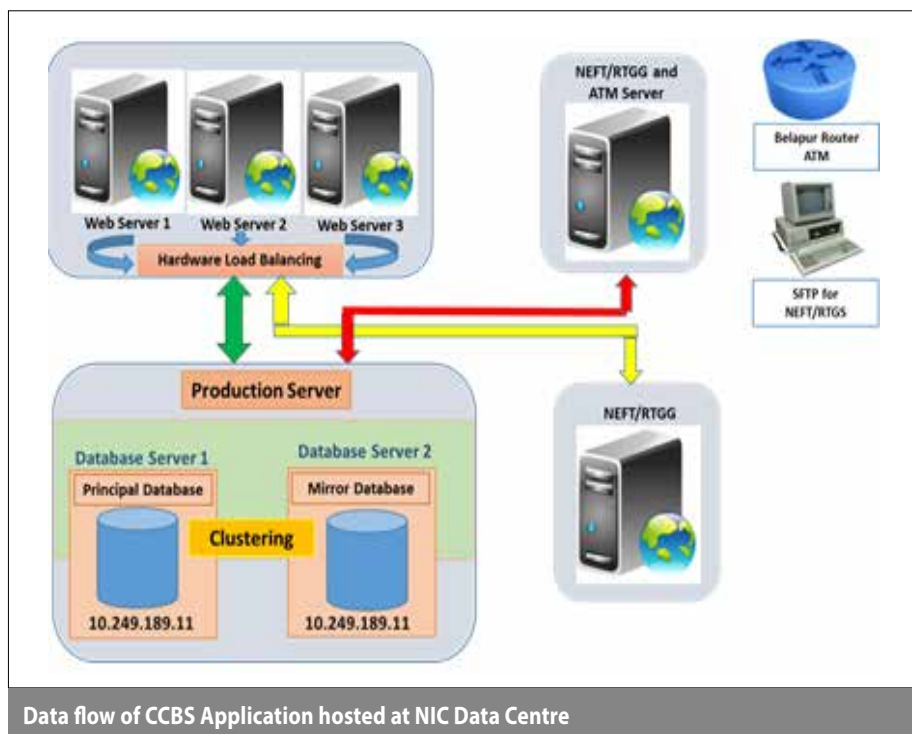
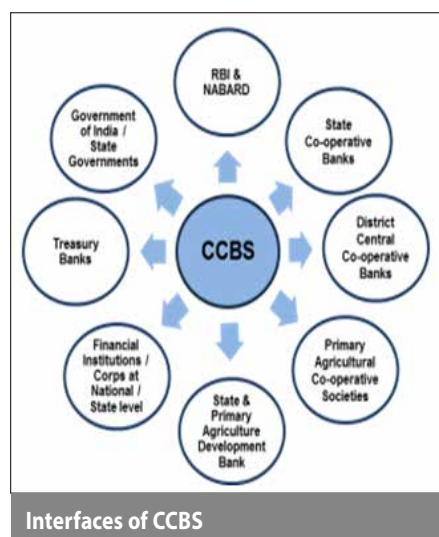


CCBS Architecture

- **Reporting Server:** Microsoft SQL Server 2012 Reporting Services
- **System Software:** Windows Server 2012
- **Language:** C#

INNOVATIVE FEATURES

- Service Oriented Architecture (SOA) to provide interoperability with other e-Governance applications
- Use of cloud computing infrastructure - hosted at National Data Centre, Shastri Park, Delhi
- Integration among all three layers of co-operative banking i.e. State, District & PACS level for monitoring & reporting
- Standardized approach to adopt common accounting system upto PACS level
- Inter-Bank transactions and Inter-Branch (at two different locations) transactions, simple & single click interest calculation and bank closing activity
- Capability to handle Direct Benefit Transfers through PACS level



MAIN MODULES

- Customer management as per KYC norms
- Current Accounts and Saving Accounts
- Fixed/ Reinvestment/ Recurring Deposits & other Term Deposits
- Loans & Advances
- Cash Credits & Advances
- Clearing Operations & Lockers, Shares Management
- Head Office module (Borrowings & Investments Remittances Statutory Reserve Fund)
- ATM integration, RTGS, NEFT & ECS
- Inter branch transactions
- Operational MIS Reports-Day Book, Cash Book, Balance Sheet, Voucher, Statement, Ledgers etc.
- Statutory/ Compliance MIS for

RBI, NABARD, State Cooperative Departments and other Government agencies

To strengthen CCBS further, a number of advanced modules like, Treasury, Social Sector Payments are planned for implementation.

IMPLEMENTATION STATUS

- **State Cooperative Banks (SCBs):** All 49 branches including the head office of Meghalaya Cooperative Apex Bank (MCAB) and a SCB, are in core banking environment. CCBS at MCAB provides the ATM and NEFT/RTGS facility. RuPay credit card facility has been started for KCC account holders and DBTL (Direct Benefit Transfer) for LPG customers having account in bank has been enabled. PoS facility has been started for conducting transactions with any Merchant Banks. PMJBY /



Conferring of the 6th eNorth East Award 2016 for CCBS under the 'e-Financial Inclusion' category

PMSBY module of CCBS is under implementation

- **District Central Co-operative Banks:** All 61 branches including the head office of DCCB Raipur are operational in Core Banking environment. NEFT/RTGS, DBTL & ATM services are in operation. The PMJJBY / PMSBY module of CCBS is under implementation
- **Primary Agriculture Cooperative Society:** Rajasthan government has awarded the work of computerization of 750 PACS under Phase-I. 30 PACS are operational under 14 DCCBs and have been made online for making the transactions. Trainings have been conducted for all the PAC managers. Computerization of 5 PACs in West Godavari district of Andhra Pradesh has been started. The PACS computerization phase is in pipeline at Meghalaya and Chhattisgarh States
- **Punjab State Cooperative Agricultural Development Bank:**

Implementation of customized CCBS at 89 Branches of Punjab State Cooperative Agricultural Development Bank is in progress. 53 primary units are performing day-to-day operations. The bank is engaged in providing loan/advances for Long Term and fall under LTCCS

- **Financial Institutions / Corporations at National / State level:** Implementation and customization of CCBS for the head office and three branches of Delhi Financial Corporation is in progress. Automation process of National Scheduled Castes Finance and Development Corporation (NSFDC) has been initiated
- **Treasury Banks:** Exploring State Bank of Sikkim for banking as well as treasury operations

FINANCIAL INCLUSION SUPPORT

- DBTL support
- Inclusion of the schemes like Pradhan Mantri Suraksha Bima

Yojana Scheme, Pradhan Mantri Jeevan Jyoti Bima Yojana Scheme and Pradhan Mantri Jan-Dhan Yojana

- Interface with Bank on Move and Point of Sale
- Better monitoring of agriculture and non-agriculture loans
- Support for cashless Dhan-Kharidi in Chhattisgarh
- SMS alerts for every transactions on registered mobile numbers

AWARDS & RECOGNITION

NIC-CCBS project has been appreciated nation-wide and has been receiving several awards since its inception. Prominent awards include 6th eNorth East Award 2016, SecureIT 2015 Award, CSI-Nihilent e-Governance Award 2014 and SKOCH' 2014 - Merit of Excellence.

WAY FORWARD

CCBS has currently been implemented at more than 200 locations in Meghalaya, Chhattisgarh, Rajasthan & Punjab and under implementation at more than 800+ locations in Rajasthan & Punjab. The development of advanced banking modules like Internet banking, Mobile Banking, Mobility Banking (Bank on Move), Business Intelligence, Open APIs, Workflow Configuration, Cloud Computing, Aadhaar based integration and development of multi-lingual module is in process.

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AEBAS Implementation In Haryana

A Quick Smart Move

Haryana is one of the foremost States of India to kick-start ICT initiatives under the Digital India Programme of Govt. The State made a quick move to implement Aadhaar Enabled Biometric Attendance System at all the departments and organizations of the State to monitor and examine punctuality of employees. This real-time system is non-repudiating and help to provide comprehensive attendance reports.



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Edited by
VIVEK VERMA

The Aadhaar Enabled Biometric Attendance System (AEBAS) has been implemented by NIC, DeitY in the Central Government Ministries/Departments of Delhi under the prestigious Digital India Programme of Government of India, beginning October 2014. The Chief Minister of Haryana has launched Aadhaar Enabled Biometric Attendance System (AEBAS) on 2nd May 2015 in Haryana Government Secretariats, all District Mini Secretaries and 7 Departments/PSUs in Phase-I. The national team at NIC Delhi/Pune has customized this central attendance system for Haryana government and provided all requisite Technical Support for its implementation.

Phase-II and Phase III implementation started from June 2015 and July 2015 respectively. Haryana is the first Government to start implementation of the National standard AEBAS (which is implemented by Govt of India) on such a large scale. Prior to this, only Jharkhand State has implemented their own Aadhaar Enabled Biometric Attendance Software in 2013.

AEBAS system provides non-repudiating and accurate record of attendance and has a dashboard with MIS that allows viewing of individual specific record of attendance as may be required. The implementation of system in Central Government in Delhi



“ The NIC-Haryana, a close technology partner of the Haryana government facilitating the line departments on e-Governance and ICT services was assigned the responsibility of implementing Aadhaar Enabled Biometric Attendance System in Haryana Government offices. I am happy to note that AEBAS implementation is done in mostly all government departments including Schools, Colleges, Polytechnics, ITIs, Municipalities, Health centres etc. by the dedicated team efforts of NIC Haryana.

I appreciate the NIC Haryana team, headed by Mr. Ghan Shyam Bansal, SIO, for their positive contribution and proactive ICT support services. ”

KESHNI ANAND ARORA
Addl. Chief Secretary, E & IT, Haryana

had a significant positive impact on attendance of employees, bringing more discipline & punctuality in the government offices.

AEBAS IMPLEMENTATION COMMITTEE

For the smooth implementation of AEBAS, an implementation commit-



Demonstration of Attendance Kiosk to CM Haryana during the AEBAS inauguration at Mini Secretariat, Panchkula

tee has been constituted by Chief Secretary Haryana headed by ACS, IT.

The Technical Nodal Officers have been designated in each department and have been provided the requisite training by NIC-Haryana Team on administration of web portal, operations & management of portal activities, training on configuration of BAS devices (Finger Print, Iris devices, Integrated BAS Tablet, Wi-Fi Access Point etc.).

Hartron has procured biometric devices and taken up their installation at identified locations. While the State IT department has facilitated the project implementation, the monitoring & coordination are being done by the State's Nodal Office for this project.

FEATURES OF AEBAS

- BAS is based on Aadhaar authentication
- BAS facilitates real time monitoring and comes with a comprehensive MIS
- The system is robust and self-sustainable to short power cuts as it uses tablets at front end.
- Time taken for authentication is 1-2 seconds on Wi-Fi.
- BAS is securely integrated with SMS communication channel. Every time a new user registers on the system, an SMS is generated and sent on his/her mobile.

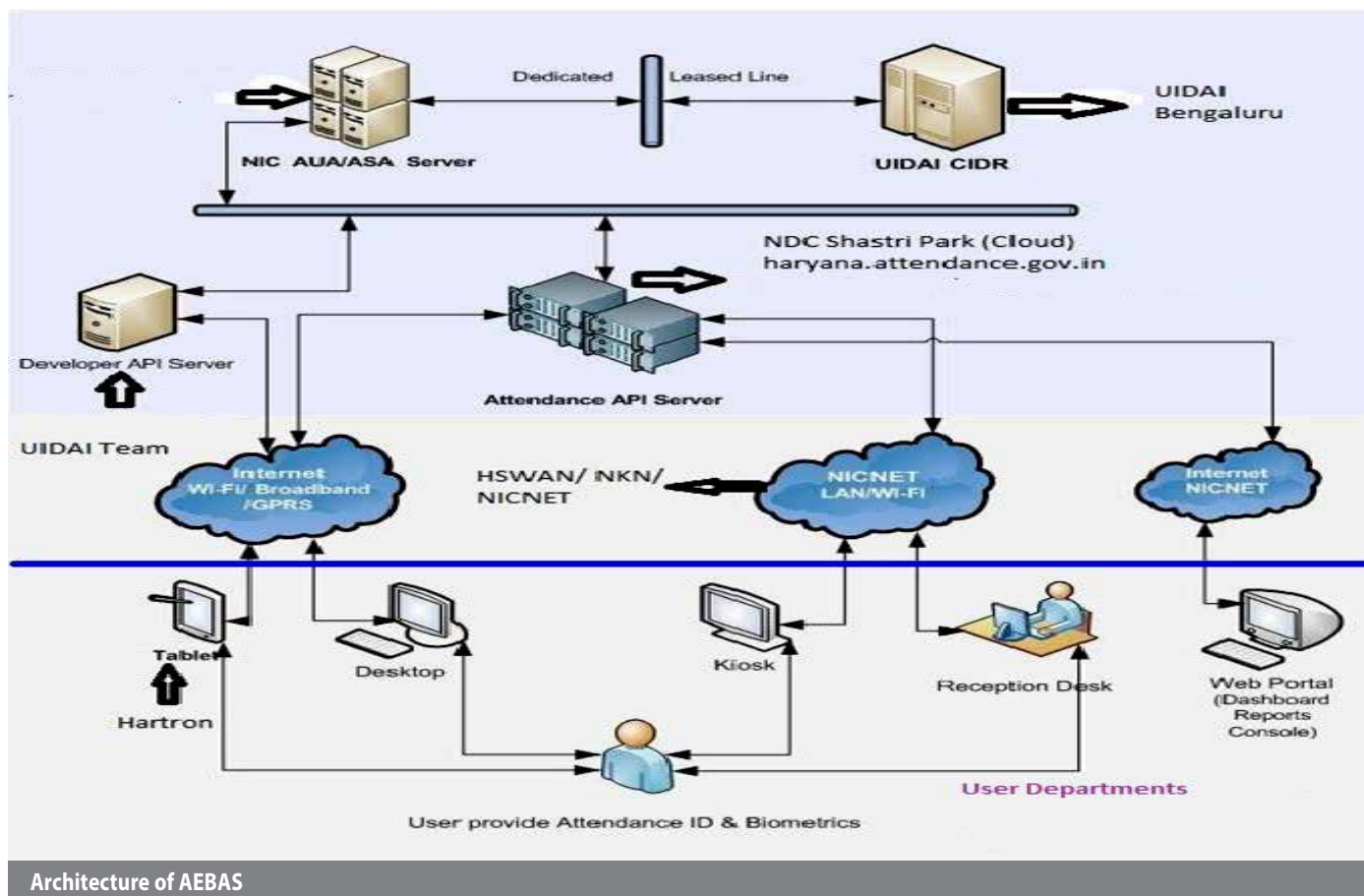
HOW AEBAS WORKS

- To start with, an organization need to register and on-board it self on the portal in which details of organisation and nodal officer are to be furnished.

- Employees register themselves on the portal to get 8-digit attendance ID which is based on Aadhaar Number (generally last 8 digits of Aadhaar number). Each employee is required to have his/her valid Aadhaar number, employee details (name, designation, office, reporting officer, mobile, email etc.) and a recent photograph.
- Employees use their attendance ID to mark their attendance on biometric sensors installed at the premises of every CG offices.
- The application prompts employees to provide biometric data via fingerprint or iris scanner which will be sent to backend system for authentication. After successful authentication message will appear on the screen.

IMPLEMENTATION PROCEDURE

- **Organization On-boarding:** To start with, designated Nodal Officer of an organization need to register itself on the portal organization need to send an duly filled on-boarding form through email to helpdesk. On boarding form can be obtained at <http://haryana.attendance.gov.in/assets/doc/organizationregistration.pdf>. The web portal of the organization is created in 2 working days and user ID and password are sent to nodal officer through Email and SMS.
- **Procurement of Biometric Devices:** The nodal officer need to calculate the number of biometric devices required and send purchase order to Hartron.
- **Masters Entries and Employee Registration:** The nodal officer need to login to the attendance portal and perform the master entries on the portal regarding office locations, employees' designation and device location after which the employee can be registered on the portal.
- **Application Installation and Marking of Attendance:** The nodal officer needs to go through installation document provided to them and install the biometric attendance application on the computer or tablet. If any problem is occurred during installation they can call the helpdesk. After installation and activation of the Biometric Attendance Application, the employees can mark their attendance using Attendance ID provided to them through SMS and Email.



TRAINING PROGRAMS AND DOCUMENTS

NIC Haryana has conducted a series of training programmes for the technical nodal officers of various departments of Haryana Government. During the training sessions, the nodal officers have been imparted with the step-by-step information for implementation of AEBAS to enabling

them for AEBAS implementation at their respective organizations. NIC Haryana facilitates further training to nodal officers if required. Detailed documents for implementing AEBAS have been prepared and nodal officers having basic operating knowledge of computers can use these documents for implementing AEBAS.

STATUS

(As On 1st March 2016)

The Aadhaar Enabled Biometric Attendance System has been implemented throughout the State for permanent and ad-hoc employees of the State Government. All the employees of the State have registered at the attendance portal, except for certain remote areas. Haryana has become the first State in the country to successfully implement AEBAS to a vast extent and ranks ahead of Central & other States' AEBAS.

Attendance Portal	Employees Registered	Attendance Marked (Approx.)	Devices Installed
CG Offices (Delhi)	179169	78000	5485
CG Offices (Outside Delhi)	255154	63000	7825
Haryana State	280949	125000	10653

Major AEBAS Attendance Portals – A statistical comparison (as on 1st March 2016)

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Smart Rourkela & Swachh Rourkela

Mobile Apps For Better Living In The City

A Smart City Plan employs ICT solutions in an urban development programme to manage the city's assets. Rourkela has been shortlisted as one of the Smart Cities under Government of India's Smart City Mission. This article highlights two mobile applications, one primarily G2C and the other G2G launched by Rourkela Municipal Corporation towards achieving objectives of the Smart City mission.



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PRASHANT BELWARIAR

Rourkela, the steel city of Odisha, has been shortlisted as one of the Smart Cities under Government of India's Smart City Mission. In its preparedness towards becoming a smart city, the Rourkela Municipal Corporation (RMC) of Odisha has launched two mobile applications; Smart Rourkela and Swachh Rourkela.

SMART ROURKELA

The Smart Rourkela Mobile App is an m-Governance application with 'Smart' Solutions to keep the Rourkela city clean and establishing a sustainable environment. The city provides many core infrastructures and a decent quality of life to its citizens. Smart Rourkela allows a citizen to lodge grievances and subsequently monitor their status. The App is also integrated with the Grievance Monitoring Application of RMC portal and facilitates the citizens to get important information.

The Smart Rourkela Mobile App features the following:

- Citizen's corner for Complaint / Grievance lodging, Helpline Numbers, e-Mail ID of important officials of RMC
- Lodging of grievance and tracking its status
- Upload photographs or documents
- Through the Apps Helpline facil-

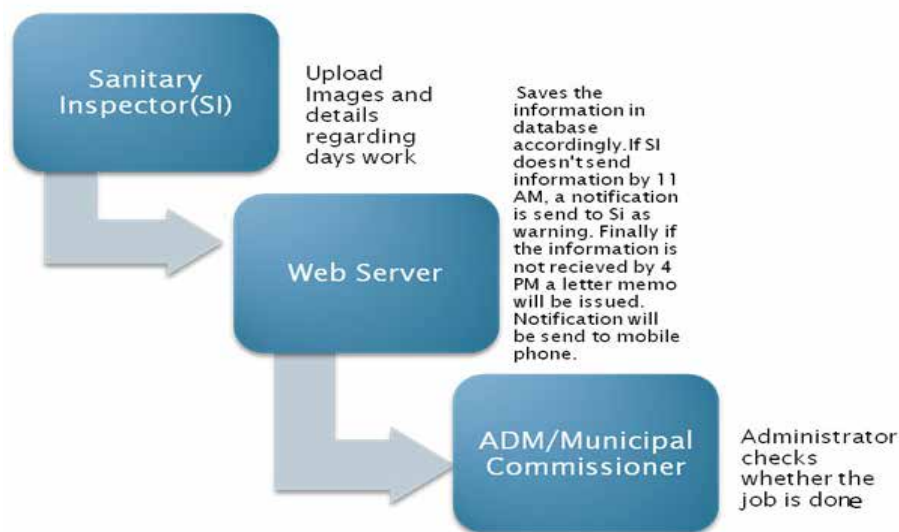


“ It gives me immense pleasure to express that the Mobile APPs 'Smart Rourkela' and 'Swachh Rourkela' are the real m-Governance solutions for Smart City Rourkela. It helps the Municipal Administration to reach citizens and make the city clean ”

SUDARSHAN CHAKRAVARTY, IAS
Adm & Chairman, RMC

ity, a citizen can easily reach the nearest Police Station, Hospitals, avail Ambulance, emergency electricity, find the Blood banks and get necessary Tourist Information

- City News, Events & Notices facilitates to get News, track Events, Notices and Circulars
- Maps facilitate route and path to all the locations in Rourkela
- To find Government Offices, Tourist attraction sites, Local Banks, ATMs etc
- Watch weather displays, local weather conditions



- Tour Rourkela facilitates a general tour e-guide of Rourkela
- Beautify RMC- Garbage found dumped at any of the places can be informed to the authority by taking photograph of the same and uploading the image to reach RMC. This enables the authorities to take necessary immediate actions for removing the same and make the city clean

User Groups

The important user groups of the App are the citizens of Rourkela, Rourkela Municipal Corporation and the tourist visitors. The App is Android based and can be accessed any time, anywhere.



User Interface of Mobile App

SWACHH ROURKELA

Swachh Rourkela App has been developed for expediting and streamlining the garbage collection and management of the city, which are the essential aspects of Smart City Rourkela. This G2G service helps to make it easier and faster for the sanitary officers involved in garbage management to provide their work status electronically anywhere, anytime. The App also allows the Administrator or Commissioner to monitor the status of garbage collection.

Using this App, the RMC officials (sanitary officers) associated with garbage cleaning operations can send reports to the RMC Administrator and Commissioner regarding daily cleaning position of garbage collection sites. They can click and upload Geo-tagged and time stamped photographs of garbage collection sites, before and after the cleaning activity. Situations such as vehicle breakdown, strike, accident etc., in which the garbage collection gets interrupted, are reported through this App.

The App is beneficial for the following:

- Garbage clearance with images,

complaints and encroachment can be processed for decision taking

- Regular garbage management by the RMC
- The sanitary Officers along with citizens of Rourkela can take active part in the management of garbage and encroachment
- The system helps in capturing the exact location or area of the garbage dump
- Suggestions can be lodged through the App

The RMC officials can access the Mobile App 24x7 using Android based smart phones anytime, anywhere.

Technology Used

Operating System: Android Platform

Integrated Development Environment: Eclipse IDE

Webpage Development: HTML, CSS, Java Script

Programming Languages: JAVA

Database: PostgreSQL

Scalability and Scope of Replication

The portals have been deployed in Meghraj Cloud. Proper status monitoring mechanism is provided to the citizens to enhance the App. The process of hosting in Google App Store and National Mobile App Store is underway. The system can be replicated for other States for similar types of application. It has been developed for Android OS and the process is on for Windows OS and IOS development.

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Financial Accounting System - Towards Better e-Governance Through Transparency In Accounting

Financial Accounting System (FAS) facilitates the departments effectively manage the funds of all Central and State sponsored schemes. Receipt, payment and adjustment vouchers are generated through this web-based software. Various roles and privileges are created for the Accounts Officers and Accountants of each Department. The Departments can monitor fund receipts and expenditure through an integrated view generated by the system.



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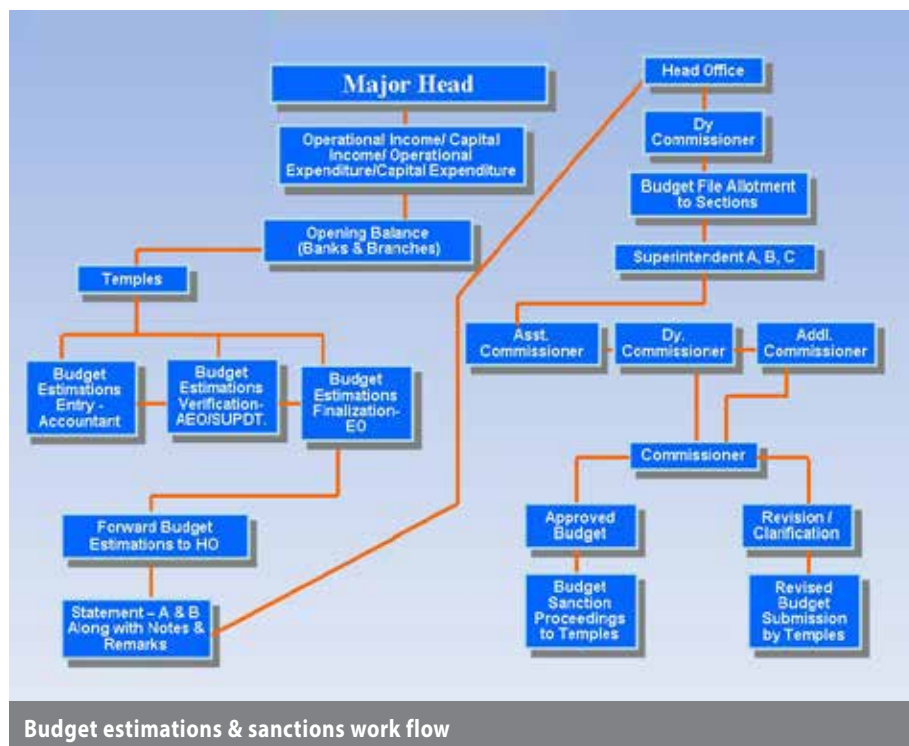
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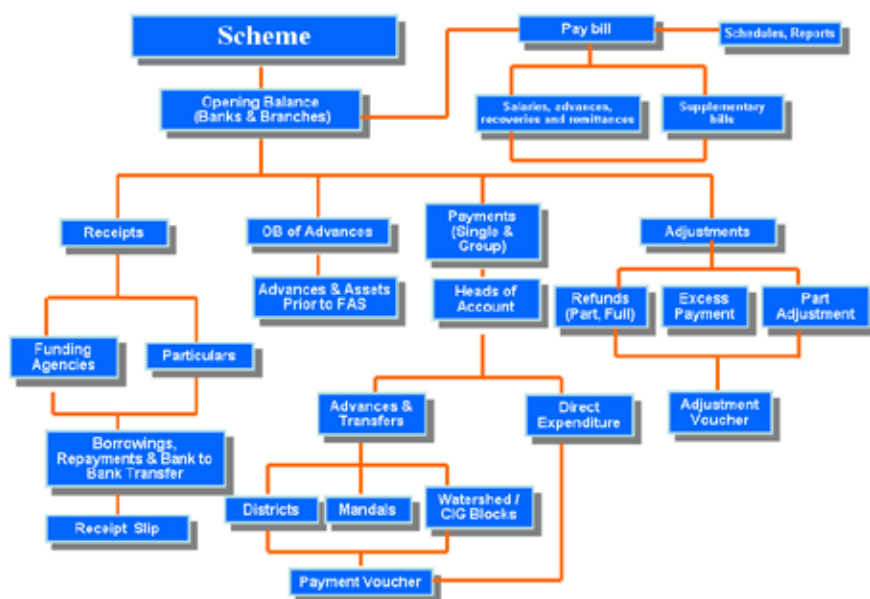
The Financial Accounting System is a generic fund management application conceptualized, designed and developed by National Informatics Centre, Hyderabad to effectively solve the accounts management problems in Central & State sponsored schemes. FAS software facilitates in generating all the statutory books of accounts with the help of receipt and payment vouchers entered day to day. The Cashbook is prepared at the end of the transacting day and the system keeps track of the availability of funds. This software will help the departments towards effi-

cient fund management of all Central & State sponsored schemes. Receipt, payment and adjustment vouchers are generated through the software.

FAS is a web based application accessible over net through a secured login/password. Different roles and privileges are created for the accounts officers and accountants of the department. The departments will be able to monitor the fund receipts and expenditure through an integrated view generated by the system. Higher officials of the department can view and monitor the state level consolidated and scheme level consolidated reports online.

SCALABILITY: The established business process and the FAS software is fully fine tuned and even after the





FAS funds flow

concurrent users have accessed the Application, scalability is maintained and the users do not have to face session related issues. The scope of the software can be increased to implement it in a wide range to new Institutions with minimal effort and within a short period of time.

SUSTAINABILITY: Most optimal sustenance model with clear definition of roles and responsibilities had been implemented. Effective Monitoring cells have been put in place to ensure daily use of software yielding desired outcomes and results. Online feedback entry with token generation and automated mail response helps to redress the implementation issues in a faster manner.

HIGHLIGHTS

- Workflow based online budget estimation preparation, submission and sanction
- Every component of receipt and

payment for a scheme is accounted with the help of strong 7 levels of heads of accounts system, uniformly across the departments

- Generic software and customizable for any department
- Analysis and decision making on releases and expenditure of funds
- Awareness and monitoring capabilities are expected to be increased for the head of departments on various accounting procedures
- Building a strong data bank of financial information
- Manual books of accounts need not be maintained
- Preparation of monthly financial progress reports

USER INTERFACE

- Menu driven and user friendly interface
- Entry of Bank, Branch and Opening Balances

- Entry of Cheque Book
- Entry of Receipts & Payments
- Adjustments (Settlement of advances)
- Bank to Bank Transfers
- Entry of Reimbursable advance, Repayment Entries (Contra Entries)
- Entry of Opening balances of Advances (out standing advances)
- Integrated Pay Bill Module for salary processing
- Bank Scroll, Cheque for DD scroll and Bank Reconciliation
- Cashbook, Periodic Cashbook and Ledger
- Annual Financial Statements

USER MANAGEMENT

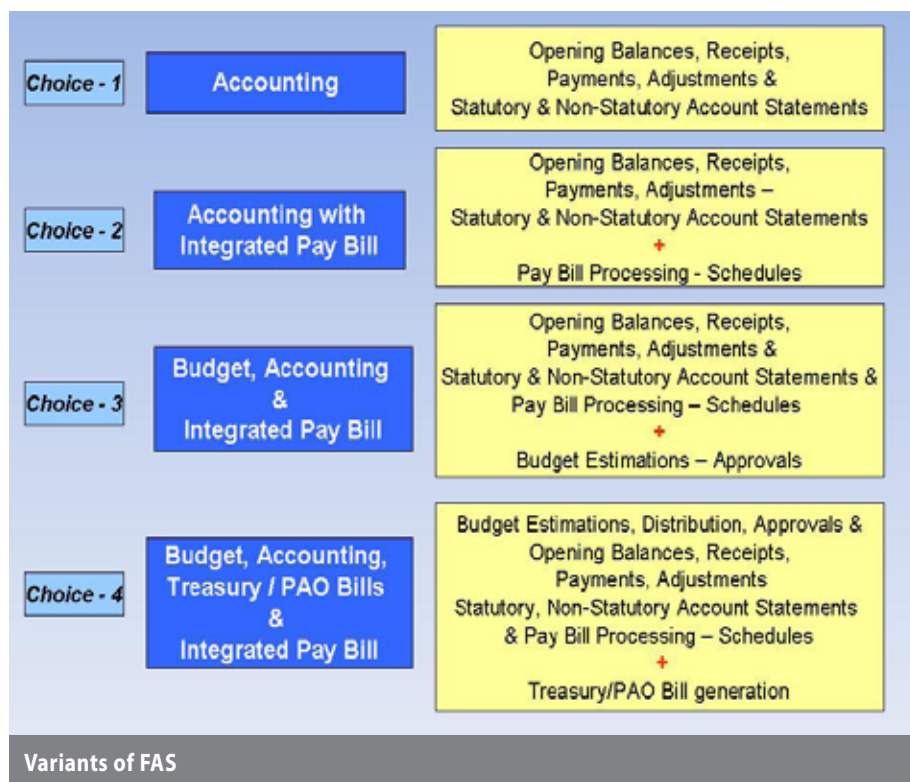
The user management module under FAS project Consists of the following major operations:

1. Identification of Users
2. User ID formation & generation
3. Security & Session Management
4. User ID intimation
5. User locking mechanism
6. Roles & Privileges

TRANSFORMATION AND POSITIVE IMPACT

Uniform head of accounts across the departments are designed by conducting series of brain storming sessions and interactions with domain experts from the departments

- Role based privileges and transaction modification history made available.



- Generation of unique voucher number for every receipt, payment and adjustment vouchers.
- Complete automation of settlement of out standing advances and current year advances
- Preparation of complete MIS of funds available on web for monitoring and decision making process for higher officials
- Scheme fund integrated pay bill module for the salary disbursement.
- Low cost effective solution (wherever required open source software are used)
- Java server pages, servlets and MS-SQL as back end database
- Application is hosted in Tomcat web server at state of art SAN data centre of NIC Hyderabad free of cost.

BEST PRACTICES ADOPTED

Deployment of the software enabled the department to instantly generate all the statutory and non-statutory books of accounts. Since the head of accounts are uniform across the Institutions, there is no chance for recording expenditure as per the choice. Monthly financial progress reports are generated with a click of button, funds position across the department in the state in all schemes is known instantly. State, district and department level consolidated reports are generated for monitoring and decision making processes. Practical approach has been adopted for unique advance settlement when compared to other accounting software.

PRE-DEPLOYMENT VS POST-DEPLOYMENT

Prior to the deployment of the software the department used to maintain the

accounts manually and various books needed to be referred to find out the release and expenditure details in a particular head of account and prepare a statement. There were repeated occurrences of human errors in writing cash books, ledgers, registers etc., recording the expenditure details in wrong head of accounts. Additionally, the ratification procedures were cumbersome. There was redundancy in work & delay in preparation and communication of monthly financial progress reports to the departments.

Deployment of the software enabled the department for instant generation of all the statutory and non statutory books of accounts. Since the head of accounts are uniform across the departments, there is no chance for recording expenditure as per the choice. Monthly financial progress reports are generated with a click of button, funds position across the department in the state in all schemes is known instantly. State, District and Department level consolidated reports are generated for monitoring and decision making processes.

RECOGNITION

Financial Accounting System for APT-WREIS has won Bronze Award at the National e-Governance Awards 2012-2013 under the category - “*Exemplary Re-Use of ICT Based Solutions*”.

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Mahari Panchayat- Mobile App & Web Portal

Empowering Panchayati Raj Institutions Of Haryana

The Panchayati Raj functions as a system of governance in which Gram Panchayats are the basic unit of local administration. The system has three levels - Gram Panchayat (Village level), Block Samiti or Panchayat Samiti (Block level) and Zila Parishad (District level). 'Mahari (My) Panchayat' comprises with macro level database of over 70000 elected representatives of PRIs in Haryana for enabling access to these representatives through Web Portal and Android based Mobile App, which is freely downloadable from Google play store.



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As the country is advancing under the Digital India regime by transforming the society into digitally empowered society with knowledge economy, it has become essential that citizens are facilitated to contact their elected representatives in need. For empowering the citizens through easy access to the representatives of Panchayati Raj Institutions (PRIs) of Haryana and to bridging the gap between the citizen and their elected representatives, NIC District Centre, Hisar (Haryana State Centre) developed Web Portal (<http://priharyana.nic.in>) & android based Mobile App. The Mobile App is freely downloadable from Google play store. Micro level database of over 70000 elected representatives of PRIs have been placed in public domain for easy access with specified credentials of elected representatives.

OBJECTIVE

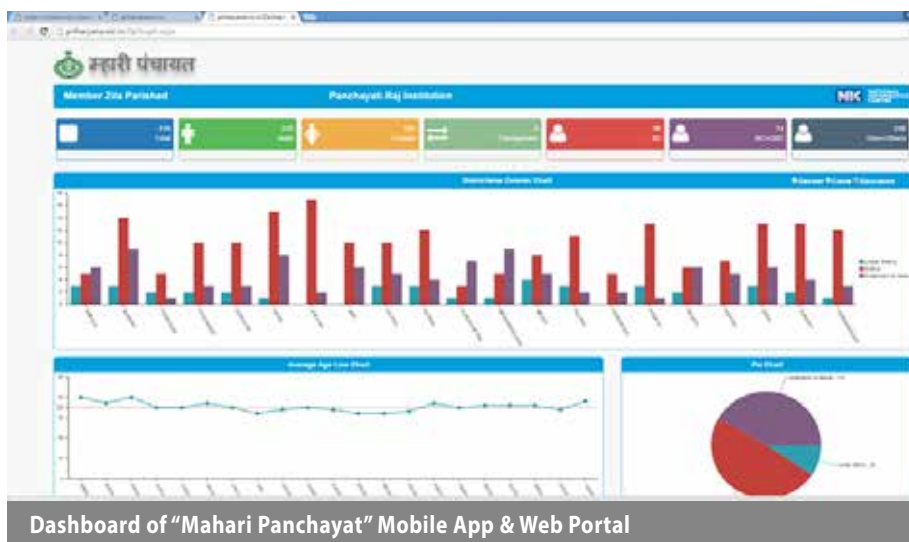
To ensure complete transparency about the details of elected representatives as per new legislation, this has fixed minimum qualification criterion under various categories of contestants for Panchayati Raj Institutions (PRIs) in Haryana. Further, to ensure close and interactive coordination of citizen with their elected representatives. The government will be able to build a strong and very useful database of all elected representatives of PRIs which will provide a framework for bringing about the transparency and integrity in implementation of Governments in various welfare programmes and their social audit.

METHODOLOGY FOLLOWED

In collaborative approach with NIC-Haryana State Centre and State Election Commission (SEC) Haryana it was decided that all the process of PRI election needs to be automated since capturing the data from nomination to declaring the elected representatives of all categories of PRI



Inauguration of "Mahari Panchayat" Mobile App & Web Portal by Hon'ble Minister of C&IT, Sh. Ravi Shankar Parasad on 27th February 2016 at Panchkula, Chandigarh



i.e. for Zila Parishad, Block Samities, Sarpanches and Panches.

E-Dashboard for Nomination - Workflow & role based system and e-dashboard developed for capturing the data through online nominations portal during the election of the Panchayati Raj Institution. The Data structure was kept same as of Area Profiler of e-Panchayat so that after electing the final representatives of PRI the same data can be ported in the area profiler of e-Panchayat. The data on the nomination for e-Dashboard portal was populated directly from the respective BDPOs.

E-Dashboard for Poll Process and winning Sarpanches - During the poll process another e-Dashboard launched for poll monitoring and for declaring the winning of Sarpanches on the same day of poll. The e-Dashboard was populating directly under the supervision of respective Returning Officers (Panchayat Samities) from the office of Block Development Panchayat Officers (BDPOs), and the sector officers / duty magistrates are the main source of carrier of communication directly from the booths and updating respective RO (Panchayat Samities).

Composite E-Dashboard enabling "Mahari Panchayat" - Finally, the counting process of the Members Zila

Parishad, Member Block Samities, Sarpanches and Panches were made available in the real time under public view with various statistical and graphical views for analysing the formation of PRI in Haryana under different variants and made available under the URL <http://priharyana.nic.in>. The link also has been made available on SEC Haryana portal.

FEATURES

- Complete database and details of elected representatives containing the details like Name, Gender, Father's Name, Photo, Caste, Address, Mobile number, Aadhar (UID), Age (DOB), Educational qualifications, Marital status and Occupation
- Graphical and analytical view of all elected representatives showing age (Average age District and State wise), Gender, Cast and qualification wise representations
- State level summary reports on various parameters
- Search facility for getting details of any PRI representatives with all credentials and photographs
- Android based mobile App for easy sharing

ADDITIONAL BENEFITS

- Government can reach out to all

representatives through a broadcast SMS using the database of PRIs (Haryana)

- Any mobile based campaign in the interest of general public which can be run using PRIs database
- This database will provide a comprehensive framework to the Government for extending various welfare schemes and monitoring there of
- Mobile App (android) "Mahari Panchayat" freely downloadable by anyone from Google play store
- Mobile App a strong tool for accessing the details of any PRI elected representative
- Sharing the outcome of Mobile App to various social media platform like WhatsApp, Facebook, Gmail, Zappya and Google+
- Strong search facility in Mobile App to get the complete detail of all Sarpanches of all wards and Sarpanch in any of the Gram Panchayat in one search including the details of Gram Panchayat including Blocks and Districts

WAY FORWARD

- Linking of this database to the village level GIS map of Haryana
- Development of GIS application for PRIs with much wider scope
- Development of grievances and expenditure monitoring system
- Converting the whole system into Social Panchayat for sharing the exclusive, landmarks and innovative works done by any of the PRI representatives at Gram Panchayat (GP) level so that other may comment and adopt the same innovations.

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WAMSI Online System

- A GIS Tool For Detecting Encroachment

WAMSI, developed by National Informatics Centre has been implemented at the State/UTs Waqf Boards of India is based on GIS technologies which uses historical satellite imageries of Waqf properties. WAMSI is used to identify land encroachments and tackle the challenges thus caused. About 5 lakh immovable properties have been added so far to this system. The GPS coordinates collection from field work has been initiated with the introduction of GIS feature of WAMSI.



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Encroachment of land resources is a common problem created by vested interests or by neighbours having adjacent farming lands. For e.g. it has been observed that during crop sowing and monsoon season, soil boundaries are naturally altered, vanished or even deliberately broken down. The farmers remake such boundaries of farming lands and over a period of time, even such small chunk of altered portions lead to accumulation of a larger area of farming lands. This illegal accumulation or encroachment creates major challenges for managing the land resources by authorities.

Waqf Management System of India or WAMSI is a web-based and work-flow enabled management system for Waqf properties to identify land encroachments and tackle the challenges thus caused. This system has been developed by National Informatics Centre and implemented at State/UT Waqf Boards of India. WAMSI is based on GIS technologies and uses historical satellite imageries of Waqf properties. About 5 lakh immovable properties have been added so far to this system. The GPS coordinates collection from field work has been initiated with the introduction of GIS feature of WAMSI. This article focuses on the technologies used and related important aspects of WAMSI.

The web URL, <http://wamsi.nic.in/>

is the public interface of WAMSI to view its features. This online platform provides all the current and relevant information on Waqf properties including GIS capabilities for encroachment detection and decision support system, which helps initiation of necessary administrative action against encroachers to keep them at bay.

PROCESS RE-ENGINEERING

WAMSI system has been designed, developed and maintained on basis of the best practices followed by various State/UT Waqf Boards in India. The work-flow processes has been re-engineered for better system efficiency.

ADVANTAGE OF THE SYSTEM

- Efficiency in various processes of information delivery. Transparency and sharing of up-to-date information to the public through web
- Helps in generating revenue for the welfare of weaker sections of the society and in line with the concept of Waqf
- Geographic Information System (GIS) driven by historical satellite imageries based on GPS coordinate system is seamlessly integrated with WAMSI, which helps in identifying the encroachments.

Technologies used for this secure and role defined system having access through web are all open sourced and are listed below:

- Linux operating system



In the Year 2003, an encroachment near boundary detected (Satellite Imagery 30-OCT-2003)



In the Year 2005, the encroachment near boundary cleared (Satellite Imagery 03-SEP-2005)

Snapshots of WAMSI's in-built GIS Report, available to the public in which encroachment identification and clearance displayed

- Apache & Tomcat Web Servers
- Java programming language (J2EE)
- PostgreSQL open source database
- Google and ISRO Bhuvan satellite imageries using APIs
- Open source DSpace technologies for DMS system

Important aspects and benefits of WAMSI

- Registration of Waqf Estates and Waqf properties
- GPS coordinates for the layouts
- Physical changes using photographs
- Management/ Mutawalli changes
- Annual Waqf property returns
- Annual welfare measures undertaken
- Annual administrative contribution to the Waqf Boards



Mr. Tony Connor, Director, Public Interest Registry ".org" Domain giving away the Manthan Award 2015- Certificate of Recognition for WAMSI project to Sh. Rakesh Mohan, Joint Secretary (MoMA) Sh. Dinesh Chandra, TD (NIC) and Sh. Naeem Ahmed, TD (NIC)

- Transparent leasing of Waqf properties
- Rent collections and reminders
- Litigation cases tracking and date of hearing reminders
- Digital preservation of ownership rights documents

USEFULNESS TO OTHER SECTORS

WAMSI system can also be used for other sectors where immovable and movable properties are treated as public assets, in which their protection, tracking of their revenue as well as legal cases poses challenges. For such applications and based on specific requirements, WAMSI can be customized by the NIC-PMU(WAMSI) team stationed at New Delhi.

USEFULNESS FOR OTHER COUNTRIES

WAMSI System can be potentially useful to other countries where Islamic concept of Waqf is prevalent, particularly for the countries in West Asian, South Asian and South-Eastern Countries.

AWARDS AND RECOGNITIONS

WAMSI has received several awards and accolades since its inception. Media houses have covered the project through their various channels.

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CHANAKYA: Registration & Examination System

Fostering Better Education System In Bihar

CHANAKYA, the Registration and Examination System is a web enabled, role & workflow based software solution for the Universities and Educational Institutions to accomplish various tasks for enrolment, registration and examination.



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The world of business is changing very fast. In order to raise the standards for efficient and effective working of universities and in turn resulting in good academic environment in the universities, intervention of technological advancement is inevitable. Higher education has to synchronize itself with the technological advancement according to the needs of people.

Bihar, once the centre of excellence in the ancient era had two world famous universities established namely Nalanda and Vikramshilla. But, over the years, scenario has changed, and now a large number of students of the State are migrating to other States for pursuing advanced and higher studies. The reasons could be late sessions in different courses, un-manageable size of universities as far as number of students are concerned, tardy process of admission to final examination system, compiling various activities by human intervention gradually ends up delay in final results.

The challenge at hand is to achieve systematically the following:

- By capturing data at right place and on time in a systematic and planned manner to re-use the data at most of the time in the process of

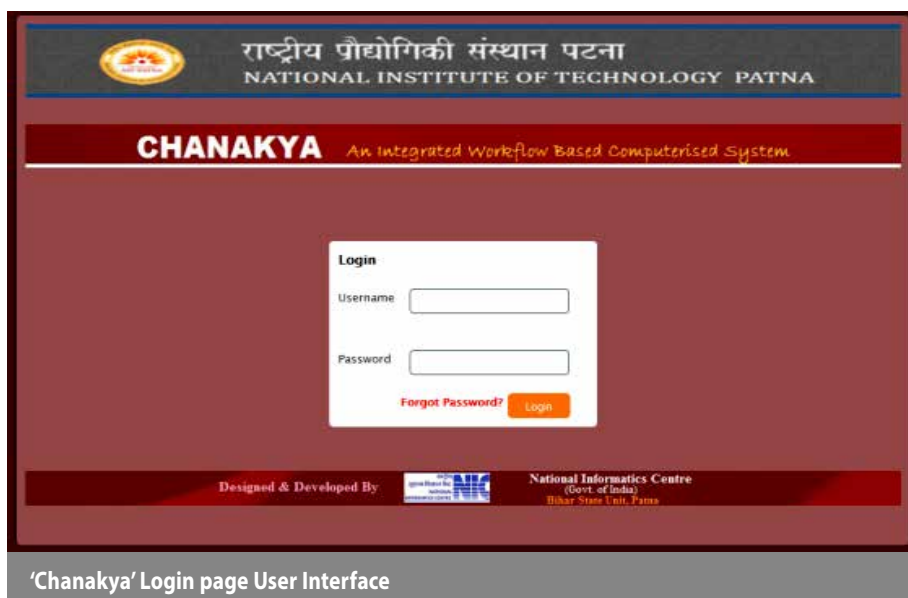


“ Chanakya, the integrated ICT solution for academic activities including student registration and examination system developed by NIC Bihar State centre has been implemented at NIT Patna. It has a significant effect on the overall activities of academic section of NIT Patna. Now all the activities like student registration, issuing of admit cards, result processing have become online. It is worthwhile to mention that result processing has become error free and publication of result has become on time.”

PROF. (DR.) ASOK DE
Director NIT, Patna

the system and ultimately creation of the student's profile

- To successfully restore the academic/examination calendar in the universities/institution
- To reduce pendency, errors, grievances, tarnished image – through implementing the solution in workflow manner including security issues



Section

- Online Enrolment & Registration of Students, Students can view their detail and download Registration Card, Admit Card, Grade Card, Transcripts etc.
- Payment Gateway Integration for payment of fees by students
- Email/SMS facility incorporation for dissemination of notifications to Students and Faculty members
- Android app for two-step login authentication
- Interface for faculty to enter marks for their respective subjects and they can put students attendance as well. They can write their feedback online or register their problems faced while marks entry or updating marks to MIS team for resolving.

IMPACTS & BENEFITS

It is highly beneficial for students as implementation of Chanakya software at institute/university level enables the institutes/universities to conduct admission in time, and issuance of various certificates within stipulated time. Most importantly, almost 100% error free result processing in time makes the other activities to carry on smoothly. Students' proper information management is another aspect where this CHANAKYA software plays a vital role as any kind of information of a student can be retrieved online quickly.

- Transparency in entire pre and post examination processes
- Unique User-ID & Password for all students to explore the student history for entire enrolment of registration process
- An integrated and centralized database for the entire System

- By putting Registration Card, Admit-Card, Results on Portal – ensuring transparency benefiting the employer and institutions at large

Earlier, in the year 2007, Chanakya was conceived as a framework incorporating ICT based solutions consisting of Examination system, Portal, Virtual Class-room i.e. Vidya Sagar and Library Automation i.e. eGranthalaya for universities. Now, “CHANAKYA” is a web enabled, role & work flow based software solution for the universities/educational institutions to accomplish enrolment, registration and examinations task which offers a better solution to improve the productivity and efficiencies of the manpower and for the entire system covering Registration & Examination Branch of the University/Educational Institute.

OBJECTIVES

- Enabling Universities with ICT based e-Governance to cater the Enrolment, Pre and Post Examination Processes
- Role based solution for each unit of the university to perform the

assigned activity in effective and efficient manner

- Creating Centralized database and integrated system so that any changes made in one module can be easily made to reflect to all related modules
- Uniform Rules and Regulation to be applied to avoid any discrepancies in the result Processing

MAIN FEATURES

- A web-based application with SQL Server 2008 as backend and .NET framework as frontend using AJAX
- Role Based users access to perform assigned task. User at Apex level can create user-id and password and further role is also assigned to perform specific task
- Apex level user can also deactivate/activate user and view day-to-day tasks performed by the associated users at any moment. Entire activities have been divided into two parts i.e. 1) Activities associated with Students 2) Activities associated with Administrative Section, Academic Section & Examination

- Error free processing pre and post examination activities and to generate Tabulation Register (TR) and mark sheets a within time frame
- Centralized database helps a lot to the apex authority to make many statistical reports.
- Time spent on manual and paper work can be cut down to a maximum extent and maintains the accuracy
- Extract details in controlled and faster way
- Periodic Back up and restoring options
- Provision of different levels security i.e. Role based security at user level, application level, database level and log transaction
- Transparent, smart and better administration
- Streamline the collation of procedures associated with enrolment and examination tasks
- Centralized, secured and robust database of students without duplication of records
- The compiled students' data can be used to generate Statistical reports to help in taking strategic decision by top level management of the University/Institute
- Effective monitoring of enrolment & examination processes by the Director of the Institute, Academic and Examination Section to minimize the fraudulence
- Online information dissemination to students, faculties and the section concerned
- Different units of examination wings are connected so that all these are able to share up-to-date without redundancy of database at various stages

TOOLS AND TECHNOLOGY

- **OS :** Window Server
- **Web Server :** IIS (Internet Information Server)
- **Database System (Back End**

Technology) : SQL SERVER

- **Front End and Business Logic:** ASP with C# using .net Framework, CSS, Bootstrap, JavaScript, JQuery and Web Services

IMPLEMENTATION

- National Institute of Technology (NIT) Patna
- MMH A&P University, Patna
- Aryabhatta Knowledge University, Patna

Implementation of the automation of Registration and Examination activities for the following Universities are also underway:

- J P University (JPU), Chapra
- BRA Bihar University (BRABU), Muzaffarpur
- Chanakya National Law University (CNLU), Patna
- Veer Kunwar Singh University (VKSU), Arrah
- North East Hill University (NEHU), Shillong, Meghalaya
- Indian Institute of Management (IIM), Shillong
- Uttar Pradesh Technical Universities (UPTU), Uttar Pradesh
- Kerala Technical University, Kerala

AWARD

Chanakya was recognized and conferred State E-Governance Excellence Award at eBihar Summit held during 19-20 February 2015.

For further information, please contact:

RAJESH KUMAR SINGH

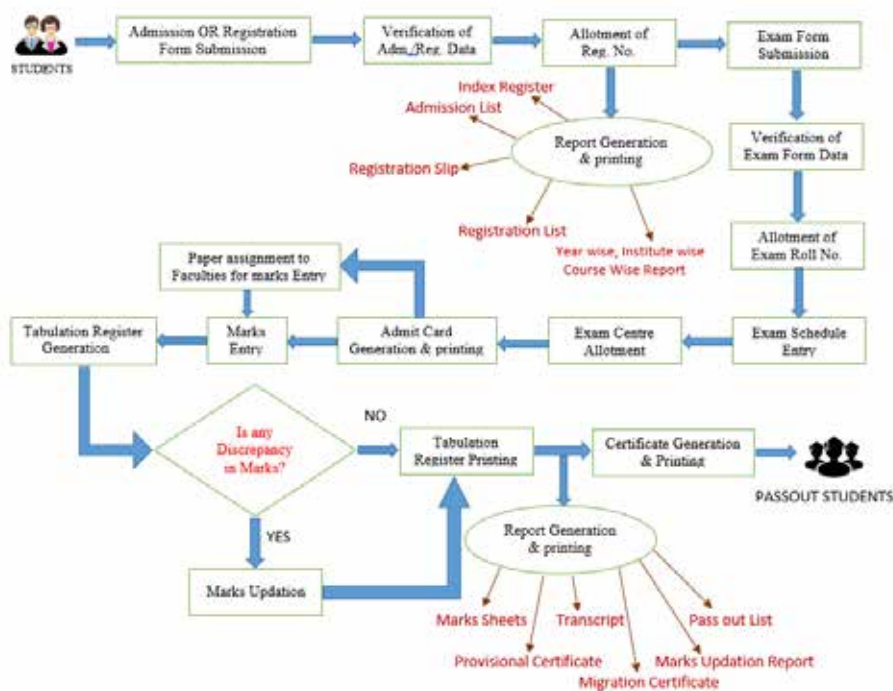
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Graphical Representation of Chanakya Work Flow System

Cyber Governance

Website of National Institute of Solar Energy



National Institute of Solar Energy, an autonomous institution of Ministry of New and Renewable (MNRE), is the apex National R&D institution in the field Solar Energy. It assists the Ministry in implementing the National Solar Mission and co-ordinates research, technology and other related works.

The homepage of the website uses vibrant colours and has a prominent slider displaying pictures of various events and activities of the Institute. The global navigation menu present in the header region provides links to various sections of the website. The navigation is simple and the user is able to reach the information in one or two clicks.

The content rich website of the institute provides information on the various departments and their activities and also the customer service offered by the institute to cater to the needs of diverse users. The information is well structured under easily identifiable categories. The new additions to the website are displayed prominently. Homepage also displays a Message from the DG along with a video showcasing the activities of the department.

The website has a well laid Site Map providing for quick access to different sections of the website. The bilingual website comes with Hindi and English versions. The portal seems to be compatible with all major browsers. Website also has a presence on social media through Face book.

Website of Department of Animal Husbandry Dairying & Fisheries

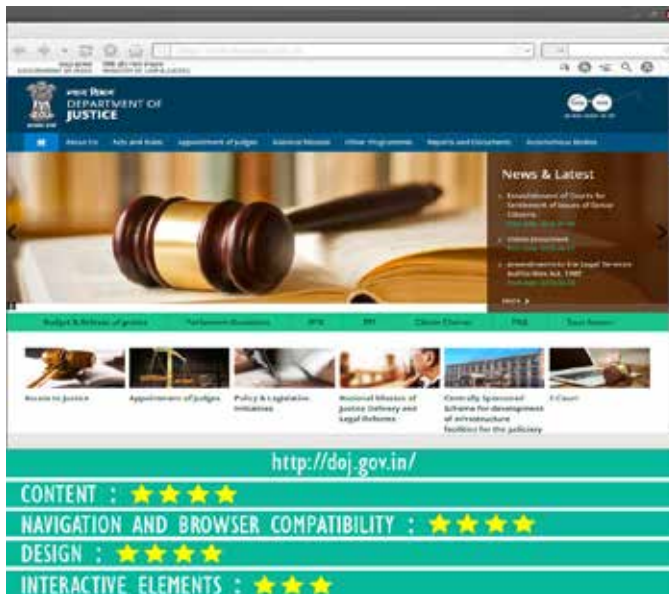


Department of Animal Husbandry Dairying & Fisheries (DADF) is one of the Departments in the Ministry of Agriculture. The Department is responsible for matters relating to livestock production, preservation, and protection from disease and improvement of stocks and dairy development, and also for matters relating to the Delhi Milk Scheme and the National Dairy Development Board. It also looks after all matters pertaining to fishing and fisheries, inland and marine.

The thoughtfully designed homepage of website of Department of Animal Husbandry Dairying & Fisheries has a clean and clutter free interface that prominently showcases the different divisions of the department and their activities. It also has a large repository of documents like reports, guidelines, handbooks, policy documents etc that are accessible through the global navigation bar present in the header region. The global navigation also provides easy and quick access to the various section of the website. The website also provides up to date information on significant topics catering to the requirements of diverse users and this is also reflected in the “what’s new” section presented on the homepage.

The website is responsive and adapts well to different screen sizes. It is compatible with all the major browsers. The website is bilingual with English and Hindi versions. The site is compliant with the guidelines for Indian government websites (GIGW) and comes with accessibility features to facilitate differently abled users. Website is easily navigable and has Sitemap covering links up to the last level. Search facility is also integrated to allow easy access to any information from single point.

Website of Department of Justice



Department of Justice is a part of Ministry of Law & Justice and is one of the oldest Departments of Govt. of India. The functions of the Department of Justice include the appointment, resignation and removal of the Chief Justice of India, Judges of the Supreme Court of India, Chief Justices and Judges of the High Courts and their service matters. The Department implements important schemes for Infrastructure Development of Subordinate Judiciary, Legal Aid to Poor and Access to Justice.

The Homepage makes a balanced use of colour. Prominent Slider banners have been provided on the homepage for dissemination of important information about the department as well as various national initiatives. Content on the homepage, is well organised with information pertaining to important activities of the department, related organizations, press releases, tenders displayed prominently. Site is easily navigable and the global navigation bar provides quick and easy access to different sections of the website. Latest updates and news showcased prominently on the homepage reinforce that the content is updated regularly on the website. Link to a photo gallery section showcasing important activities of the ministry is present on the homepage.

The website incorporates search feature and sitemap covering links up to the last level to facilitate easy discoverability of information. Accessibility features such as skip to content, font size increase and high contrast have been provided to facilitate ease of use for visitors with visual impairments and low vision. The website also offers an online Feedback form to invite user's suggestions.

National Voter's Services portal



National voter's services portal is owned by the election commission of India which is a permanent Constitutional Body. The Constitution of India has vested in the Election Commission of India the superintendence, direction and control of the entire process for conduct of elections to Parliament and Legislature of every State and to the offices of President and Vice-President of India.

The conscientiously designed portal comes with clear identity elements. The portal provides various online services to the voters which are presented as tabs on the homepage. These include services like searching for a Name in electoral roll, Applying online for registration of new voter both in India and overseas and correction of names etc. The homepage has a clean look with all the services prominently highlighted. The homepage also features a prominent slider showcasing the objective of the portal. The clutter free interface provides a smooth navigation that is not deep and leads the user to the information /service in one or two clicks.

The portal content is mostly in the form of online forms and search. These are currently available in English only. The homepage also provides links to external sites containing important information for voters like the polling process, information on electronic voting machines and links to state/UT CEO's.

The website seems to be compatible with all major browsers. The interactive features like searches and online forms are easy to use.

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Principal Systems Analyst
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Integrated Online Hotels Reservation System software of NIC, Himachal Pradesh receives National eGovernance Award (Gold) at 19th National Conference on eGovernance, Nagpur, Maharashtra

Award: National eGovernance Award 2016 (GOLD)

Categ: Innovative use of ICT

State: Himachal Pradesh

The Integrated OHRS is a web-based application which provides online availability status of accommodations and instant online reservation facility to Tourists through the HP Tourism Development Corporation's website, major travel portals and Mobile Application. The iOHRS facilitates online payments, cancellations, immediate confirmation of bookings through SMS/e-mail, enabling/disabling payment gateways, customizable cancellation policy, discount /special offer, easy check-in at HPTDC hotels etc.



Work Flow Automation System of OSSOPCA receives National eGovernance Award (Silver) at 19th National Conference on eGovernance, Nagpur, Maharashtra

Award: National eGovernance Award 2016 (Silver)

Categ: Innovative use of ICT by State Government/ PSUs

State: Odisha

OSSOPCA Work Flow Automation System improves the productivity of seeds compared to the manual process in all the four seasons continuously. The complete workflow has seven major steps, which entirely covers the automation through a holistic approach to solve many decade long challenges.

ePass System implementation in Assam Secretariat receives Chief Minister's Award for Excellence in Public Administration, 2016 at Dispur, Guwahati

Award: Chief Minister's Award for Excellence in Public Administration

Categ: New Initiative/ an Innovative Step of Efficient and Transparent Execution of Schemes/ Programmes of State/ Centre

State: Assam

The Assam Secretariat e-Pass Application, a G2C service is smart initiative of Secretariat Administrative Department (SAD), which has been successfully implemented in the Assam Secretariat, with the support of SeMT. This application enables efficient and convenient way of issuing various passes to visitors of the Assam Secretariat. With its implementation, various reports are also provided to the Administration such as daily count of visitors, most visited departments and the district from where the highest number of citizens has visited the Secretariat. The validity of the passes is ensured by the system thus curbing counterfeit passes. Quick capturing of the barcode data using the barcode scanner also reduces the long queues at the Security gate. A citizen can apply for online pass 5 days prior to his/her visit and the pass can be collected from the security gate itself.



In the News

Three Workshops on IVFRT conducted at Regional Districts of Bihar

To implement online services to foreigners under Immigration, Visa, Foreigners' Registration & Tracking System (IVFRT), workshops were held at the districts Bhagalpur, Muzaffarpur and Gaya of Bihar. These workshops aimed at capacity building of officials from Foreigner Registration Offices (FRO) and District Informatics Officers (DIO) for smooth implementation of the application software such as C-FRO (Foreigners Registration in FRO), C-FORM (Foreigners info capture at Accommodation) and S-FORM (Foreigners Info capture at Educational Institutes). The project is being implemented by Home Department, Govt. of Bihar in association with Special Branch and National Informatics Centre (NIC).

Workshop at Bhagalpur on 26th February 2016: Sh. B.S Meena, IG, Bhagalpur Zone, addressed the participants and expressed the importance of capturing online data to facilitate legitimate travellers and enhance security measures. DIG Bhagalpur Range, SSP/FRO Bhagalpur, City SP Bhagalpur also addressed the participants. Mrs. Nanda Singh, ASIO (Districts) and Sh. S.K. Shrivastav, Technical Director, NIC also addressed the participants. Sh. K.K. Jha, DIO and Sh. Kumar Neelesh, ADIO extended necessary technical support for conducting the workshop.

Workshop for Muzaffarpur Regional Districts on 1st March 2016: Sh. Dharmendra Singh, District Magistrate, Muzaffarpur inaugurated the workshop. During the inaugural session, Sh. Rajesh Kumar Singh, SIO Bihar explained the participants on the need of better integration and information sharing any stake holders. Sh. Navin Suman, DIO and Sh. Praveen Kr Jha, ADIO extended necessary technical support



for conducting the workshop.

Gaya workshop on 5th March 2016: Sh. Kumar Ravi, District Magistrate inaugurated the workshop in the presence of Smt. Garima Mallick, Sr. Superintendent of Police/FRO, Gaya, Sh. S.P. Shrivastava, Assistant Director, BOI, Shd. Rabinendra Kumar Singh, Addl. SIO, NIC, Bihar. Sh. Kumar Ravi emphasised on the need to increase the coverage by bringing all transactions captured. Sr. S.P., Gaya, in her address stressed for better sharing of information for improved tracking facility. Sh. S.K. Shrivastav, Technical Director, Sh. Randhir Kumar, Immigration Officer and Sh. Rajiv Ranjan, IVFRT coordinator, Bihar interacted with the participants. Sh. S N Behera, DIO, Sh. Tarun Kumar Sinha, ADIO and Sh. Prabhat Saurav, IVFRT, Gaya Airport extended necessary technical support for conducting the workshop.

RAJIV RANJAN, PATNA

e-Office for Sundargarh Collectorate launched by Hon'ble Chief Minister in Odisha

The eOffice for the Collectorate, Sundargarh, Govt. of Odisha, was inaugurated by the Hon'ble Chief Minister of Odisha, Sh. Naveen Patnaik on 24th February 2016 at Bisra Maidan, Rourkela. e-Office was developed by NIC and aims at effective and transparent inter & intra-government processes for better e-governance. The open architecture of e-Office makes it a reusable framework and a standard product in government.

The inauguration event was graced by Sh. Juel Oram, Union Minister for Tribal Welfare, Sh. Dillip Tirkey, MP, Sh. Prafulla Kumar Mallik, Minister of Odisha, Sh. Sarada Nayak, Chairman, Rourkela Development Authority, Sh. Subrat Tarai, MLA, Sh. Mangala Kissan, MLA, Sh. B. Punia, Collector, Sundargarh, Sh. Ranjit Prakash, ILO India Head, Sh. Subash Singh, Chairman OB & OCWW Board, Ms. Rupa Mishra, IAS, Labour Commissioner, Odisha, Dr. R.N Behera, Sr. Technical Director, NIC, Bhubaneswar, Sh. Saroj



Kumar Patro, SSA, NIC (HQ), Sh. Pinaki Mohanty, Project Co-ordinator, CMGI, Odisha.

Sh. S.K. Panda, DDG & SIO and Sh. R.S. Gopalan, IAS, Chief Executive, CMGI have initiated eOffice implementation in Odisha.

- A. K. HOTA, ODISHA

Launch of On-line System to Redress Grievance & Disputes Settlement for Industrial Units in Gurgaon, Haryana



on'ble Chief Minister Haryana Sh. Manohar Lal, launched on-line services for grievance redressal and dispute settlement related to industries on 2nd March 2016 at Gurgaon.

In the grievance redress mechanism, the investor files of the grievance reaches the State level nodal officer designated at Haryana Enterprise Promotion Board (HEPB) or to the Deputy Commissioner of concerned District. In case, the grievance is not redressed at District Level Empowered Committee, it gets escalated to State level and then to Apex (PSCM/CM) level. The Desk Officer of HEPB conveys the redressed grievance outcome to the investor.

Through this portal, long pending disputes and litigations of the existing industrialists/ investors in Haryana can now be filed on-line for settling by the Empowered Committee. The one-time disputes settlement process flow has also been made online.

A guide pertaining to clearances helps the new investors in Haryana to be aware of the Clearances/ Approvals/ Licens-



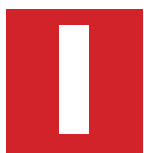
CM Haryana Launching On-line System to Redress Grievance & Disputes Settlement for Industrial Units under Ease of Doing Business

es required for each type of desired investment/industry. The guide also contains a questionnaire with about 20 questions for filling online and submission. The investors are provided with the major clearances/ approvals/ Licenses/ Registration etc. for their investment planning.

NIC teams of Punjab and Haryana have jointly developed the sub-systems and linked to Haryana's Investors Portal (<http://investharyana.nic.in>) under a single window clearance system.

DEEPAK SAWANT, HARYANA

HARYANA: Launching of e-Services, Portals, NOFN & IT enabled Gram Sachivalayas by Union Minister of C&IT in Panchkula



In continuation to the making of Digital Haryana, Sh. Ravi Shankar Prasad, Union Minister of Communication & Information Technology has launched several IT initiatives of Haryana State on 27th February 2016 at Indradhanush Auditorium of Panchkula in the presence of Sh. Manohar Lal, Chief Minister, Haryana. The initiatives included 105 e-Services delivery through Common Service Centres (CSC) of 20 Departments, 4 Portals, National Optical Fiber Network (NOFN) of Faridabad district and more than 6000 ICT enabled Gram Sachivalayas. The event witnessed more than 1000 CSC-VLEs, department officials and other dignitaries. The event was organized by IT Department in coordination with NIC & Hartron.

The Chief Minister, in his speech expressed his vision and dreams and related the word 'DiGITAI' as 'Dil mein hai GITA' and emphasised the role of IT for betterment of people. Sh. Ravi Shankar Prasad has spoken on the achievements of the Ministry and applauded Haryana for its rapid speed for IT achievements and announced several offering includes one STPI at Panchkula. Chief Secretary Sh. D.S. Desi addressed the audience praising the achievements of Haryana. The ACS (IT) Smt. Kesni Anand Arora had



MoCIT Sh. Ravi Shankar Prasad inaugurating e-Services/ Portals/ IT Initiatives

apprised the audience on various IT initiatives being undertaken in Haryana. In the event, five VLEs have been awarded for their achievements and were presented with laptops. Sh. Vijendra Singh, Secretary IT made the vote of thanks speech.

The Union Minister visited the exhibit stalls at the event venue, which showcased various services and products such as e-services and portals of 20 Departments of State Government. The prominent stalls included that of RGI's CRS BASED Aadhaar Linked Birth Registration Program in Haryana, CSC-SPV's telemedicine, IFMS portal, Jeevan-Praman, e-Stamp and e-Gras integration with CSC.

DEEPAK SAWANT, HARYANA

Online Marriage Registration in Rajasthan inaugurated

Hon'ble Chief Minister of Rajasthan, Smt. Vasundhara Raje launched the Online Marriage Registration through Pehchan Portal (<http://pehchan.raj.nic.in>) on 21.03.2016 at NIC Stall in Birla Auditorium, Jaipur on the occasion of Rajasthan IT Day. The Chief Minister distributed Digitally Signed Marriage Certificates to 6 couples. Shri Akhil Arora, Secretary, Planning Rajasthan, Smt. Indu Gupta, Dy. Director General & SIO NIC Rajasthan, Shri Tarun Toshniwal, ASIO and Sr. Technical Director, NIC Rajasthan, Shri Om Prakash Bairwa, Chief Registrar (Birth-Death) & Director, Economics and Statistics, Rajasthan and other dignitaries were present on the occasion. Blessing the couples, the CM said that the delivery of digitally signed marriage registration certificates which strengthens the marriage registration process is a revolutionary step in the State through which a large number of citizens will be benefited. The concept of bilingual marriage registration certificates was appreciated and congratulated SIO, NIC and his team for the successful development of the portal.

The portal enables easy and quick registration of marriages and to print the Registration Certificates. Citizens can apply for marriage registration to Registrar office that can generate the certificate through Pehchan. Pehchan is a unified web portal for Birth, Death, Still Birth and Marriage Registration in Rajasthan. Alternatively, citizens can also apply through the nearest e-Mitra/CSC kiosk and get the personal appearance date on which the concerned Registrar verify the documents/details and issue Registration Certificate. Citizen has the facility to authenticate his/her application through Aadhaar or Bhamashah-number. In case of non-availability of these, identity proof can



CM Rajasthan, Smt. Vasundhara Raje handing over a digitally signed Marriage Certificate

be uploaded along with joint photograph of the couple. There are about 12,500 Birth & Death Registrars and about 10,000 Marriage Registrars in Rajasthan.

Portal has role-based logins for Registrars, Sub Registrars, Block Statistical Officers, District Registrars and Chief Registrars. The portal has been integrated with UID for Aadhaar authentication and so far registered about 50 lakh Birth/ Death certificates. Registrars are provided facility to digitally sign the certificates. SMS alert is generated to applicant on registration and digitally signed certificate is delivered to the applicant's email id. Portal is providing about 100 types of monitoring reports to District Registrars and Chief Registrar. Apart from the facility to search the registration online, the portal has also the facility to maintain legacy registration with the original registration number. Toll-free helpline is available at the portal to answer queries of citizens regarding registration.

AMIT AGARWAL, JAIPUR

Mobile App launched at Indira Gandhi Krishi Vishwavidyalaya, Raipur

On the 30th foundation day of Indira Gandhi Krishi Vishwavidyalaya (IGKV), Raipur, Chhattisgarh, a National Workshop on "Concepts of Higher Education and its Future Nature" was organized on the 20th January 2016. With this, university moved one step ahead towards ICT penetration in the administration by launching its first "Android based Mobile App" for the benefit of students, faculty members of the university, all constitutional and affiliated colleges. The Mobile App was launched by Sh. Gaurishankar Agrawal, Speaker, Chhattisgarh Legislative Assembly in the presence of Dr. S.K. Patil, Vice-Chancellor along with many dignitaries and faculty members.

NIC Chhattisgarh State Centre, Raipur has developed the App as a part of "Integrated Management Information System" being developed for the university covering seven different modules viz. Education, Examination, Establishment, Finance, Research, Extension and University Web Portal. The mobile App features profiles of Students & Faculty, Student Registration Cards, Results, Fee Receipts and Semester Report Cards.



Shri Gaurishankar Agrawal, Speaker, Chhattisgarh Legislative Assembly, inaugurating the mobile App

The IGKV MIS App can be downloaded from the official website of the IGKV Raipur, <http://igau.nic.in> and <http://igkv.mis.cg.nic.in>. It can also be downloaded from Google Play Store.

The IGKV project is being coordinated by Sh. Ashok Kumar Banjare, Technical Director and Sh. Abhijeet Kaushik, Scientist-B, NIC Chhattisgarh State Centre, Raipur.

Y.V. SHREENIVAS RAO, CHHATTISGARH

Workshop on e-Granthalaya Software for Automation and Networking of Government Libraries conducted in Pune

A three-day long workshop on e-Granthalaya 4.0 was organized at Yashwant Rao Chavan Academy of Development Administration (YASHADA), Pune for Automation and Networking of Government Libraries, from 15 to 17 Feb 2016. 35 Participants from various Government Organizations and libraries attended the workshop. The workshop was inaugurated by Dr. Sadanand Bansode, Associate Professor, Department of Library and Information Science, Pune University. Dr. Manoj Kulkarni, Senior Librarian of YASHADA co-ordinated the workshop.

e-Granthalaya 4.0, a digital agenda for library automation and networking is an integrated library management software developed by NIC for Government libraries. The application has been hosted at NIC Cloud and is being used online for data entry and other member services.



The participants of e-Granthalaya 4.0 workshop

During the workshop, various modules of the software were taken for data entry and issue return of the documents in the library. Data entry modules for generating e-Catalogs also were introduced to the participants.

Sh. Ram Kumar Matoria, Technical Director and Mrs. Rajni Mishra, PSA from NIC HQ conducted the workshop. Sh. Avinash Mekala, Scientist-C from NIC Pune provided hands-on session.

RAM KUMAR MATORIA, NEW DELHI

New Initiatives on Shram Suvidha Portal inaugurated

Hon'ble Minister of State (Independent Charge) for Labour & Employment, Shri Bandaru Dattatreya, launched the new initiatives on Shram Suvidha Portal on 9th March 2016 at New Delhi. The portal's objectives include integration of Annual Return under Mines Act, Monthly EPFO/ESIC Common Return, upgraded inspection system and multilingual feature besides the common registration facility on the e-Biz platform.

Ministry of Labour & Employment has taken an initiative for development of Shram Suvidha Portal to facilitate reporting of inspections, submission of returns etc. This unified portal has been envisaged as a single point of contact between employer, employee and enforcement agencies bringing in transparency in their day-to-day interactions and also to avoid the duplicity information being collated by multiple enforcement agencies for enforcement of Labour Laws.

Speaking on the occasion, Hon'ble Minister said that the Inspection System for various Labour Acts has been upgrad-



Shri Bandaru Dattatreya, MoS, Labour & Employment launching the new initiatives of Shram Suvidha Portal.

ed with a provision for objections and clarifications on the uploaded inspection reports. This will help all concerned in taking a holistic view on the report without wasting time. Shri Shankar Aggarwal, Secretary (L&E) said that for the benefit of common man, Shram Suvidha Portal has been made multilingual providing information in eleven Indian languages viz. Bengali, English, Gujarati, Hindi, Kannada, Malayalam, Marathi, Punjabi, Tamil, Telugu and Urdu. Shri Manish Gupta, Joint Secretary outlined the future initiatives for next financial year.

RAJENDER SETHI, NEW DELHI