

Informatics

AN e GOVERNANCE BULLETIN FROM NATIONAL INFORMATICS CENTRE

<http://informatics.nic.in>

SPECIAL FEATURES

- 1 ~ ISO 9001:2000 Certification
- 1 ~ NIC Certifying Authority

STATE INITIATIVES

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TECHNOLOGY UPDATES

- 1 ~ Computational Challenges [in Bio-Informatics]



VOLUME 12 NO.2 OCTOBER 2003

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In this issue, we are covering two important developments as 'Special Features', namely the preparations for ISO 9001 : 2000 Certification of NIC and the launch of NIC Certifying Authority. While the former signifies NIC's efforts towards establishing its credibility in the global arena, the latter is a landmark achievement when it comes to the important issue of ensuring security and reliability in transactions performed through the Net.

We have received a fairly enthusiastic response to Informatics NewsOnline (<http://informatics.nic.in/newsonline>). The credit ,of course, goes to the development team at NIC HQ and to all the Informatics Correspondents whose regular contributions have made NewsOnline, a successful concept...yet again !!

Sonal Kalra

Readers Write

Dear Editor,

I wish to thank "Informatics" team for giving good coverage to the initiatives of the Himachal Pradesh Government. The IT efforts in HP have mostly been NIC Driven. Informatics presents a true picture of E-Governance in various State Governments. Hope the magazine will be of immense use to Government Officials engaged in IT activities in the Country

Arvind Kaul, IAS
Chief Secretary, Govt of Himachal Pradesh

Dear Editor,

I have, for the first time, seen your July 2003 issue of *Informatics* and would like to avail myself of this opportunity to congratulate you on bringing out an excellent magazine in a superb design, full of information and presented in a very readable and attractive manner. Please keep up the good work.

Harsh K. Bhasin
Ambassador of India
Copenhagen, Denmark

Dear Editor,

The Informatics News Bulletin from NIC provides important insight into the IT initiatives undertaken by different State Governments. You may add a section in Informatics for showcasing successful IT Projects executed by the Private sector for Government Departments. This will also present a broader outlook of NIC.

Ajay Mittal, IAS
Director, HP Institute of Public Administration

**Readers are invited to send their comments/
suggestions to the Editor through this column. Your
letters may be sent through email at**

sonal@hub.nic.in

or by post at the following address :

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**Visit <http://informatics.nic.in/newsonline>
for the latest and up-to-date News**



Accolades.....

Here's what some of the esteemed users of NIC's services have said in the recent past

"I write this letter to convey my sincere appreciation of the efforts put in by NIC in arranging a four-location Video Conference between New Delhi, Gandhinagar, Sachivalaya, Bhuj Hospital and a remote village Chapredi, in Bhuj Taluka, on 25th January, 2003 morning. I am sure NIC will continue to do so in future also."

Sh. Atal Bihari Vajpayee, Hon'ble Prime Minister

"The Prime Minister was fascinated by the excellent video conferencing facilities of NIC."

**Sh. Arun Shourie, Hon'ble Union Minister
for Communications and IT**

"Every other day I am reminded of the excellent work NIC is doing."

**Sh. Arun Shourie, Hon'ble Union Minister
for Communications and IT**

"This is indeed a matter of pride to note, that NIC has done pioneering work ,to usher in computer culture in the government. NICNET provides the networking backbone for e-governance in the country".

**Sh. S.Thirunavukkarasar,
Hon'ble MOS, Ministry of Communications and IT**

"It (Bhoomi Project) is a unique programme and really fascinating. This is a programme dearer to my heart. I compliment the Karnataka Revenue Department and NIC for this excellent work."

**Sh. Venkaiah Naidu,
Former Union Minister for Rural Development**

"I take this opportunity to commend the support provided by the National Informatics Centre to the Treasuries Department for its computerization."

**Shri N. Chandrababu Naidu,
Hon'ble Chief Minister of Andhra Pradesh**

"I think the Government of India nationwide has done a lot of work (in IT) and we are proud of their work. And that is the work done by the National Informatics Centre. In many states, NIC has met the requirements of State Governments."

**Sh. Rajeev Ratna Shah
Former Secretary,
Dept of Information Technology**

"NIC has been of immense help to Government to usher in E-Governance in the State and we look to their continued assistance for extending it to all spheres for better public service."

**Sh. P. Shankar
Former Chief Secretary,
Govt.of Tamilnadu**

"I was thrilled and delighted to see the excellent work done in this registration office at Nemom. I congratulate all who have made this possible. Our aim must be to ensure that all the offices in Kerala of the Registration department are computerized on the same lines at Nemom."

**Shri N. Vittal
Former Central vigilance
Commissioner
Government of India**

" Oh... this is CIC, I have already visited over 20 nos. of CIC and their contribution to the society is immense "

**Lt. General S.K. Sinha
Hon'ble Governor of Assam**

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▶ Dr. Sunanda Banerjee, NIC HQ

ISO 9001: 2000 Certification Process in NIC - Aiming for excellence in quality

There are five elements of customer service: Responsiveness, Knowledge, Integration, Resourcefulness and Dedication. Successful performance of any organisation calls for maintenance of highest level of quality through proper instruction and vigilant monitoring that helps it to identify errors, improve performance and evaluate training deficiencies. The solution requires fitting together human and technical resources into a unique program that gets customers the information they seek for – when and how they like to have it. ISO Certification provides a stable platform that is internationally recognized and serves as a distinctive competitive advantage for an organization.

What is ISO 9000?

ISO 9000 series of standards relate to Quality Management System (QMS). It requires the organization to establish & maintain the document "Quality Manual" as a means of ensuring product/services conformance to specified requirements and improve continually. The ISO 9000 standards are thus significantly different from normal engineering standards, which typically focus on product or material. Instead, ISO 9000 attempts to standardize all the business processes emphasizing continual improvement.

The standard includes a number of "good practices" which must be followed to ensure the effectiveness of the quality system.

Advantages of ISO 9000

Adopting ISO 9000 standard offers a number of advantages to all the stakeholders including suppliers, customers, employees etc. The customer feels more confident about the quality

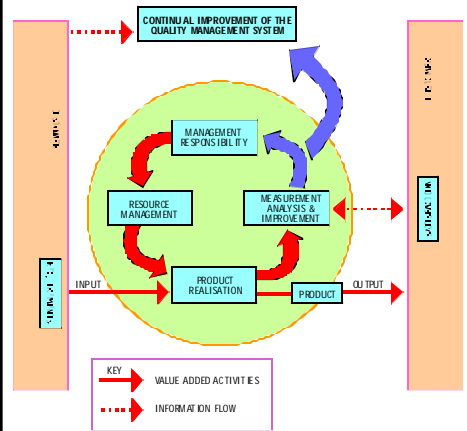
Features of ISO 9000 Standard

- ☞ The standard is not a product standard but a quality management system standard.
- ☞ It has been produced by people who were conversant with the problems and failures in the industry and also the requirements of the quality system.
- ☞ The various clauses of the standard specify the requirements for quality system management, in an objective manner.
- ☞ ISO 9001:2000 is used for contractual situations (2nd/3rd party assessment). The organisation meets the requirements of ISO 9001: 2000 for registration or certification that can be obtained from authorized bodies.
- ☞ The standard gives only the basic guidelines. The company or organizations have to establish their own rules and procedures. The rules and procedures will depend on the objective and quality policy of the organization.
- ☞ The standard has found wide spread acceptance.
- ☞ The philosophy of ISO 9000 is to provide a system, which is transparent, preventive and promises continual improvement of quality of product/services or system as a whole.

assurance system used by his supplier through visibility & verifiability based on documented quality system. The standard contributes effectively in reducing quality cost thus enhancing profit and also leads to an enhancement in the productivity of the employees. In addition, it brings a positive change in the work culture of an organization.

Structure of ISO 9000

The latest ISO 9000 series of standards were published in 2000. The related standards in quality management include :
ISO 9000:2000 - Quality Management Systems- Fundamentals and Vocabulary
ISO 9001:2000 - Quality Management Systems - Requirements
ISO 9004:2000 - Quality Management Systems- Guidelines for performance improvements
ISO 10011-1 : 1991 - Guidelines for auditing Quality System (Part 1 : Auditing)
ISO 10011-2 : 1991 - Guidelines for auditing Quality System (Part 2 : Qualification Criteria for Quality System)



MODEL OF A PROCESS-BASED QUALITY MANAGEMENT SYSTEM

ISO 10011-3 : 1991 - Guidelines for auditing Quality System (Part 3 : Management of Quality Programs)
 ISO 10011-1,2,3 have now been replaced by single standard ISO 19011 published in 2002 (Auditing standard for Quality Management System and Environmental Management System)

ISO 9001:2000 and NIC

Starting as a small programme under an external stimulus by an UNDP project, NIC has grown incrementally and later exponentially as one of India's major S&T Organization promoting "Informatics-led Development", which has helped to usher in the required transformation to cope with the trends in the new millennium.

Today, NIC is ready to offer ICT consultancy services to other countries and to take up



ICT projects on turnkey basis. Need has been felt to opt for ISO 9000 kind of Certification that will provide NIC the required recognition at the international level as well as the capability to compete globally with other ICT solution providers.

Through a Memorandum of Understanding (MoU) in October, 2002, NIC has appointed **Standardization, Testing & Quality Certification (STQC) Directorate**, an attached office of Department of Information Technology, Ministry of Communications & Information Technology as a consultant for its ISO 9001:2000 Certification Process. STQC has been set up as a premier Institution to provide quality assurance & certification support in the field of Electronics and Information Technology. STQC has been providing a variety of internationally recognized certification services such as Quality Management System (ISO 9000), Environmental Management System (ISO 14000), Product Certification (Safety & EMI/EMC), Information Security System (BS 7799).

The scope of the MoU with STQC covers Quality Management System Certification support as per ISO 9000 Series of International Standards in NIC HQ including its units in different Ministries/ Departments/Organizations of Govt. of India, 28 State Units, 6 Union Territories, NCT as well as about 596 District Centres and its promotional units. The activities would broadly cover:

- 1) Preparatory activities such as awareness training, documentation, internal quality audits training, guidance for preparing the quality manual and other documented system



Sh. M. Moni, DDG (NIC) showing the draft Quality Manual at the review meeting. Sitting on his left : Dr. S. L. Sarnot DG (STQC)

and association in initial internal quality audits / pre- assessment.

- 2) Certification activities such as document evaluation as per ISO 9000 standards, preliminary visit, certification audit and grant of certification.
- 3) Post Certification activities such as surveillance audits.

Current Status of Activities related to ISO 9001:2000 Certification Process in NIC

- ☞ NIC has signed an MOU with STQC Directorate in October, 2002
- ☞ Awareness Programmes and Executive Briefings have been conducted for all the employees in NIC Headquarters, State Centres and District Centres.
- ☞ Review meetings are being held on the subject on a regular basis.
- ☞ Various Groups have been constituted to draft Quality Manuals and document various procedures as required under the process, and these groups are on the job.
- ☞ The Quality Policy and Quality Objectives have been prepared and documented.
- ☞ Currently Pre-Certification activities are in progress viz. preparation of Quality Manual, Project Life Cycle Document, template for SRS, documentation of various technical procedures practiced in NIC etc.
- ☞ Audit Process for Certification will start once the documentation is in place and approved by the NIC management.

Draft versions of documents have been



Dr. S. Banerjee addressing the participants at the review meeting.

made available on IntraNIC (<http://intranic.nic.in>), the Intranet portal of NIC for the access of NIC officers / officials



The committee members at the ISO Review meeting held at NIC HQ.

through which, useful comments are being received for the further enhancement of the documents.

Quality Policy

National Informatics Centre is committed to meet and exceed customer requirements by providing Quality and Reliable ICT Services and Global Solutions.

For this, We shall continually improve our Processes through a team of Competent Professionals, Adoption of Appropriate Technologies, Use of International Standards and Best Practices.

The progress of adoption of ISO 9000 in India was in low key, initially. Of late, there has been increased enthusiasm for ISO 9000. In fact the stakes are higher for Indian organizations. Given the direction in which the Indian economy is proceeding in terms of liberalization, international trade & business, Indian organizations will be facing world competition on their own soil. In such a case, quality improvement through total quality efforts & ISO 9000 will be a strong competitive weapon for NIC. The ISO 9000 standards will help NIC in generating confidence through Transparency & Competence.

For further information, please write to sbanerjee@hub.nic.in



► S.K Roy and Mona Asnani, NIC HQ

NIC Certifying Authority- Ensuring a Secure E-Future

" The first step towards an Information Society requires that millions of people be entrusted with information considered sensitive or even secret "

-S.Frederic Starr

The above quote implicitly considers that secret information be protected to maintain its secrecy ! But the very openness of the Internet, that has led to its explosive growth, has also given rise to security limitations. Government entities and private businesses that are obvious candidates for participating in electronic commerce are understandably cautious. To be able to rely on the electronic messages they receive, such organizations need assurance that those messages are authentic and reliable.

Digital communication has created new complications for old business models:

- ✗ How do you know the identity of the person you're dealing with?
- ✗ How do you prove that a certain transaction was performed ?
- ✗ How do you secure your communication?

By implementing a public key infrastructure (PKI), entities can be assured that data remains confidential and intact, and all transactions are legally binding.

NIC Certifying Authority (NICCA)

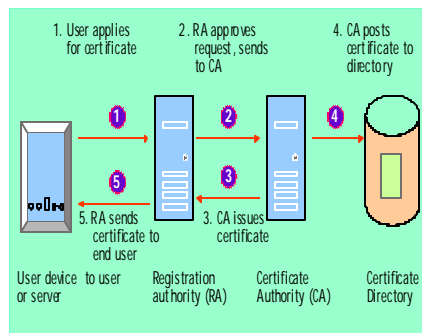
As the Government of India moves toward the implementation of E-Governance at various levels of Government functioning, authentication of information becomes a critical requirement. To provide the necessary platform, a Public Key Infrastructure becomes essential. **NIC has set up a Certifying Authority, which is an integral part of this Public Key Infrastructure.**

PKI refers to a whole host of components, applications, policies and practices which are responsible for offering its users the

following benefits:

- ✗ Certainty of the quality of information sent and received electronically
- ✗ Certainty of the source and destination of that information
- ✗ Assurance of the time and timing of that information
- ✗ Certainty of the privacy of that information
- ✗ Assurance that the information may be introduced as evidence in a court of law

PKI Model



The basic components of a PKI are the Registration Authority (RA) and the Certifying Authority (CA). The RA authenticates and registers new users and requests certificates for them. The CA generates certificates on the RA's request and posts the certificate to a directory. A PKI also includes policies, procedures, and contracts that govern how and when digital certificates are issued, renewed, or revoked, among other issues.

Therefore, public key infrastructure consists of :

- ✗ A certifying authority (CA) that issues and verifies Digital Signature Certificate.
- ✗ A registration authority (RA) that acts as the verifier for the certificate authority before a digital certificate is issued to a requestor

- ✗ One or more directories where the certificates (with their public keys) are held
- ✗ A certificate management system

A Certifying Authority (CA) is a trusted third party or an entity that has been granted license by the Controller of Certifying Authorities (CCA), the apex regulatory body for Certifying Authorities in the country, to validate identities and issue Digital Signature Certificates. The method of validating identities, issuing of certificates, certificate management etc depends on the policies of CA as defined and published in their Certificate Practice Statement (CPS). NICCA fulfills requirements of trustworthiness of a Certifying Authority as laid down by the IT Act 2000.

A certificate-based system provides services commonly known as 'CAIN' :

- ✗ **Confidentiality-** to ensure that sensitive information does not fall into the wrong hands
- ✗ **Authentication-** to verify the identity of the sender and the recipient of digital information
- ✗ **Integrity-** to verify that information is received unaltered from the sender
- ✗ **Non-repudiation-** to ensure that transactions are legally binding, protecting your business from fraud

How Public Key Cryptography Works :

The method of disguising plain text in such a way to hide its substance is called Encryption. Encrypting plain text results in unreadable gibberish called Ciphertext. The process of reverting ciphertext to its original plain text is called Decryption.

In public key cryptography :

- ✗ A public and private key (called as key pair), are created by a Certifying Authority (CA) in the presence of the subscriber or alternately this key pair may be generated by subscriber himself.
- ✗ The private key is given only to the requesting party. The private key is never shared with anyone or sent across the Internet.
- ✗ The public key is made publicly available (as part of a digital certificate) in a



directory that all parties can access. The private key is used to decrypt text that has been encrypted with the corresponding public key of the key pair. Thus, if a person 'A' wants to send a message to a person 'B', 'A' can find out the public key (but not the private key) of 'B' from a central administrator and encrypt a message using the same. When the person 'B' at the other end receives it, he/she can decrypt it with his/her private key.

The Information Technology Act, 2000 provides the required legal sanctity to the Digital Signatures based on asymmetric crypto systems.

☞ | Functions of NIC Certifying Authority :

- ☞ Subscriber Request: Identification of persons applying for Digital Signature Certificate (DSC) through Registration Authority (RA).
- ☞ Key Certification: The transaction that results in the CA signing a subscribers' public key and issuing the Digital Signature Certificate.
- ☞ Certificate Publishing: placing the certificate in the PKI directory where PKI users can search for and retrieve it.
- ☞ Certificate Renewal: issuing a new certificate to the subject when the current certificate has expired.
- ☞ Certificate Revocation: adding a users certificate to the revocation list making the certificate invalid from that date and time onward.
- ☞ Revocation list Publishing and maintenance: to keep the Certificate Revocation list (CRL) current within the PKI and place the current CRL in the PKI directory where PKI users can search for and retrieve it.

Initially, NICCA functions as a trusted authority in the G2G domain for issuance of Digital Signature Certificates (DSC).

☞ | Basic Services

- ☞ Issuing Digital Signature Certificates to Subscribers in G2G environment.
- ☞ Secure Socket Layer (SSL) Certificates: Issuance of Web Server Certificate.
- ☞ Online Certificate Status Protocol (OCSP) Services: sends a request of a certificate status information to the client.
- ☞ Directory Services: Posting and maintenance of Valid Certificates and

Certificate Revocation List.

- ☞ Time Stamping Services: a unique and unforgeable time stamp can be assigned to any piece of digital data. The time stamp provides proof that this particular data existed at a certain point in time.
- ☞ Round the clock (24X 7) operations.
- ☞ Provision for Key Archiving Services
- ☞ Provision for Sub CA
- ☞ Provision for Multiple RA: establishing multiple Registration Authority within various parts of the country, to function under NICCA
- ☞ Provision for Disaster Recovery Site

☞ | Application Development Services

- ☞ Build awareness among Government Departments.
- ☞ Provide training and consultancy services.
- ☞ Integrate Digital Signature with existing NICNET applications.
- ☞ Assist development of new Digital Signature based Applications.

☞ | Conclusion

The need for secure communications in Computer Networks has brought about the need for setup of a Public Key Infrastructure. NIC Certifying Authority is one such component in a PKI setup paving the way for a 'trusted' digital environment leading towards good E-Governance.

With the CA facility at NIC providing digital signatures, it is hoped that government offices will first turn "less-paper" and gradually "paperless". It would also help the e-governance drive through a secure and 'trusted' digital environment in cyber space. In fact, with digital signatures attached e-mail and other documents transmitted over the Net would become valid legal documents.

For further information please contact:
NIC Certifying Authority Division
E-mail: support@camail.nic.in
WWW : <http://nicca.nic.in>

Shri Arun Shourie, Hon'ble Minister for Communications and Information Technology, inaugurated the Certifying Authority for Digital Signature Certificates at National Informatics Centre on 8th July, 2003. With this, NIC has become the first Certifying Authority in the government sector. This facility will provide Digital Signature Certificates (DSC) to the officials of central and state government and all District Administrators with a view to promote E-Governance in the country. The first lot of digital signature certificates from NIC were presented to Mr. Shourie, Mr. Thirunavukkarasar, Minister of state for IT, and Mr. KK Jaswal, Secretary, Department of IT. As a first application of digital signatures in the government, electronically signed e-mails were exchanged.



Hon'ble Minister for Communications & Information Technology, Shri Arun Shourie, lighting the lamp at the inauguration ceremony. Also seen in the pic: Sh. Thirunavukkarasar, MOS (IT), Sh. K.K. Jaswal, Secy (DIT), Sh. Lakshminarayanan, Add. Secy (DIT) and Sh. S. K. Roy, TD (NIC)



Dr. N Vijayaditya, DG (NIC) lighting the lamp at the inauguration function



Dignitaries visiting the NIC Certifying Authority. (From L to R) : Sh. M. Moni, Dr. N. Vijayaditya, Sh. Lakshminarayanan, Sh. K.K. Jaswal, Dr. Y.K. Sharma, Sh. Thirunavukkarasar, Sh. Arun Shourie and Dr. B. K. Gairola

▶ | *Ajay Singh Chahal, Himachal Pradesh Correspondent*

Himachal Pradesh – Setting Standards in IT Excellence



The State of Himachal Pradesh, known as "Dev Bhoomi", is situated in the North of India with a population of 62 Lakhs and an area of 56 thousand square Kilometers. "Start by doing what is necessary, then what is possible and suddenly you are doing the impossible" has been the motto of NIC Himachal Pradesh ever since its establishment in the year 1988.

☞ | Citizen Services

With the maturing of IT in India, there has been a shift in focus with emphasis on providing more citizen services. The NIC HP has implemented the following citizen centric projects:

☞ **LokMitra Project:** The NIC Himachal Pradesh State Unit (NIC-HP) has formulated the LokMitra project as a Government to Citizen Interface. The pilot of the LokMitra project has been implemented in the Hamirpur district. Twenty-five Information Centres were set up in the district, which are managed by the unemployed youth selected by the LokMitra Society on a self-sustaining basis. The basic objective is to provide various services to the people living in rural areas at their doorsteps like grievance redressal, queries, downloadable forms, details of development schemes, how to avail benefit from various schemes, market rates, buy-sell, matrimonial, notices, tenders, vacancy details etc. A nominal fee is charged from the users of this service. Based on the feedback and lessons learnt in the pilot project, it is proposed to implement the LokMitra project in a modified form in the whole state as a G2C Project. Sh. Virbhadra Singh, Hon'ble Chief Minister Himachal

Pradesh specially mentioned LokMitra in his budget speech of year 2003 laying stress on its implementation in all districts of HP. "The LokMitra Project has been listed as one of the 20 Hot e-Gov projects of the country by the Dataquest Magazine-September 15, 2003 issue."

☞ **Electoral Rolls:** The Electoral Rolls of HP, in Hindi, covering 42 Lakh electors have been published on the HP Government website and can be searched on name, polling station and serial number wise.

☞ **Web enabled Hotel Reservation System software:** The Web-Enabled Hotels Reservation System software developed and implemented for the HP Tourism Development Corporation, with hotels at 54 different geographical locations has been implemented for the last three years. The software has interfaces for reservation offices and individuals for making on-line bookings in any of the hotels of HPTDC.

☞ **Publishing of Examination Results:** The NIC HP has been successfully publishing all examination results of the HP Board of School Education for the last three academic years. This year, the Interactive Voice Response System (IVRS) was introduced for the Board results by setting up a Server with telephone lines at NIC, Shimla. The results of all classes were published on the website <http://hpreults.nic.in> and made available to



students on local call basis within Himachal. About 8 Lakh students accessed their results through the website and the IVRS system, which is an achievement in itself for a State with a total population of 62 Lakhs.

Sh. B.R. Rahi, Chairman, HP Board of School Education wrote to NIC, "I congratulate the NIC officials who made it possible. The NIC HP has been providing this remarkable service and that's why the Board could achieve the distinction of disseminating results information through IVRS, website and Email."

☞ **PEHAL-The E-Governance Initiatives:** To introduce transparency in the government functioning and to give better, friendlier, speedier, efficient services to the citizen on a single window, an attempt has been made in HP by establishing E-governance centers in various districts of HP where activities related to Vehicle Registration, Driving License, Registration of Land Deeds, Arms License, Land Records Copy(/ Nakal(HIMBHOO MI)), Passport Form Collection Centre have been taken up.

☞ **Computerisation in the Administration : HP Secretariat:** The Secretariat LAN is spread across three buildings viz Armsdale, Yojna Bhawan and CM Secretariat. As many as 150 terminals and 75 clients are installed in these buildings and 8 servers are used to serve applications to the users on the clients and terminals. A number of software have been developed and implemented for various application areas. The important ones are LAN-REFNIC-letters and files monitoring system, Freedom Fighters MIS, House Allotment MIS, Vehicle Expenditure Monitoring System, etc.

☞ **CM Office:** CM-REFNIC software has been developed for monitoring the references received in the Chief Minister Office from various sources (General Public, Ministers, MLAs and other VIPs) relating to subjects like grievances, transfer, development etc. The software provides for diary of the references, report generation, queries and reminders.

☞ **Districts computerisation:** To computerise the activities of the District Administration



in a standardized manner, an exercise was taken up in 1993 to study the areas where the computerisation could help to meet the desired objectives of transparency, efficiency and better governance. The project, 'DISNIC-District Administration Project' is envisaged and following software have been developed and implemented in all districts:

1. Public Grievance Information System
2. Peshi Branch Monitoring Information System
3. Reference Monitoring Information System
4. Group Housing Management Information System
5. Copying Branch Management Information system
6. Revenue Recoveries Management Information System
7. Cash Counter Management Information System
8. Schemes Monitoring Information System
9. Tribal District MIS
10. Sadar Kanungo MIS

✂ **Excise & Taxation:** The NIC HP has developed software for computerisation of all Excise Barriers in the State. The Tax Barrier MIS software takes care of incoming and out-going goods by capturing ST-XXVI Form data and generating receipts for tax. The software is implemented at the major barriers. The DISNIC-Sales Tax software has been implemented at the AETC offices to monitor the returns filed by the Dealers and cross checking the returns against goods recorded at the Barriers.

✂ **Education:** Two software, namely Personnel MIS and Institution MIS have been developed for the Secondary Education department, which employs more than 40,000 employees. Data is captured at the District level and further analysis/monitoring is done at the Directorate level.

✂ **7th All India School Education Survey**
The NIC HP has been entrusted with the design and development of software for data entry, validations & national level **tablets for the 7th** All India School Education project. The software for data entry has already been distributed to all

State Units in a workshop held in the month of April 2003 at Shimla, which was inaugurated by DG, NIC.

✂ **Rural Development:** The Web-enabled RuralSoft software, developed by NIC Hqrs, has been modified to allow Block level data entry. Comprehensive online checks have also been added in the software to capture quality data directly from the 75 Blocks of HP. The software has been implemented for two schemes of SGSY and SGRY after imparting training to 64 employees of the rural development department.

✂ **Generalised Software:** The NIC HP has developed generalised software for Payroll processing, Personnel MIS, Departmental Budget Monitoring System, Inventory Management Information System.

✂ **Land Record Computerisation (HIMBHOOMI):** The Himbhoomi software aims at generating Records Of Rights automatically and to provide the copy of records to the individuals and encompasses Land Records, Land Reforms, Agriculture Census, Agriculture Statistics, Minor Irrigation Census, Customary & Forestry rights information. The software is getting implemented in all Tehsils of HP.

✂ **Welfare Department:** HP Welfare Deptt disburses pensions to around 1,60,000 old aged, handicapped, widow, lepers, destitute pensioners quarterly in the form of Money Orders. The software generates Money Orders, ledgers and helps to keep track on the returned Money Orders, acknowledgement, dispatch details etc. The software has streamlined the system and reduced the drudgery of the work. The software for Online Disability Certificates Issuance to the handicapped is also functional for the department and around 30,000 disability certificates have been issued through the software. The web-interface updated quarterly gives information of pension disbursement and issue of disability certificates.

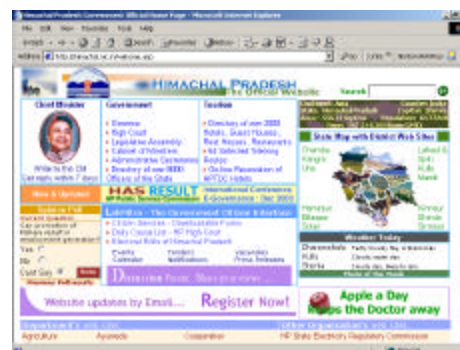
✂ **Finance-State Budget Processing:** A software was developed to simplify the



The Hon'ble Chief Minister of HP, Sh. Virbhadra Singh launching the Kinnaur Distt. website

process of budget preparation of the State in the year 1994. The budget books are prepared through this software. Now the software has been converted into the Windows platform. Besides generating the budget books, the Budget CD is prepared and the summary of the budget is hosted on the web at <http://himachal.nic.in/finance>

✂ **Online Treasuries Information System:** Himachal Pradesh was among the first States in the country to computerise the accounts compilation process in the District Treasuries of the State. The DISNIC-Treasury software was developed and implemented in the year 1990 and has been running smoothly. Now, the online version of the software (on Windows platform) has been tested and implemented in one Treasury and is under implementation in other Treasuries.



✂ **Web Services:**
The official website of the Himachal Pradesh Government (<http://himachal.nic.in>) has been developed by



NIC as a web-portal covering all aspects related to the Government of HP. Special emphasis has been laid on the E-Governance and G2C services aspect. **The website has won the Best Website Award (Silver Icon Year 2002)** in the E-Governance conference organized by the Department of Personnel & Public Grievances, Govt of India. After conferring of the Silver Icon Award to the Himachal Government website, **Sh. Arvind Kaul, then Principal Secretary (IT)** wrote an appreciation letter to NIC and commented "The conferring of Silver Icon Status is a morale booster for the state of Himachal Pradesh with respect to the IT sector initiatives undertaken, especially in the field of E-Governance".

Computerisation in the Judiciary:

The NIC HP initiated computerisation process in the H.P. High Court in the month of March 1994 by posting one officer. The LOBIS software was implemented and extended to the filing and inquiry counters. Over the years a number of other software have been developed at HP High Court and now two NIC officers are posted. These software are Fixed Deposits Receipt Monitoring, Indian Law Report (Himachal series), Personnel MIS, Library Information System, Subordinate Courts Disposal Information System etc. NIC has been able to train nearly 150 employees of the HP High Court in the use of various application software. The website of the HP High Court has been designed and developed by NIC cell at High Court and is available at <http://himachal.nic.in/highcourt>. The District courts computerisation was actively pursued by NIC HP and the District Courts Information System software has been implemented in the 11 District Courts.

Computerisation in the Legislature:

The NIC HP has posted one officer in June 1996 at the HP Vidhan Sabha to computerise its activities, being one of the three important wings of Democracy. The various software developed and implemented are Discretionary Grants Monitoring System, Loans Monitoring System, Bills Monitoring System, Budget Monitoring System, Recurring Deposits

Monitoring System, Telephone Billing System, Pension MIS for Ex-MLA's and Payroll Processing System.

The NIC Vidhan Sabha has developed and launched the website of Legislative Assembly, which can be accessed at <http://himachal.nic.in/hpvs>. During Assembly Sessions Daily/Supplementary List of Business, Rotation of Ministers, Tentative Calendar, Day wise list of Assembly Questions, Brief of days proceedings, Corrigendums are published.

Training:

The NIC HP has entered into an MOU with the Himachal Institute of Public Administration (HIPA) for providing quality training on IT tools to the State Government officers/officials on a regular and uniform basis. NIC has provided two faculty members at HIPA and conducts training courses on paid basis and equal number of courses are organised by NIC



free of cost at Shimla and all District Centres of NIC. The following facts, after the signing of the MOU, speak for themselves:

- ✦ Revenue of over Rs.18 Lakhs generated for NIC through paid courses
- ✦ 7300 officers/officials of the State Government imparted training in 568 courses
- ✦ Establishment of IT laboratories at HIPA, Shimla and District Training Institutes at Mandi and Dharamshala with infrastructure worth Rs.1.5 Crores

Paid Projects:

- ✦ The State Unit has formulated and executed a number of paid projects, the prominent ones are:
 - ✦ Department of Education (Development of Personnel MIS and Institution MIS

software and supply of hardware)

- ✦ HP Tourism Development Corporation (Web-enabled Hotels Reservation System software and supply of hardware)
- ✦ Department of Rural Development (Supply of hardware, training and implementation of RuralSoft software)
- ✦ Department of Treasuries & Accounts (Supply of hardware)
- ✦ IVRS for the HP Board of School Education
- ✦ HPSEDC (establishing dial-up connectivity at counting centre and training to the operators)
- ✦ Design, development and hosting of the websites of Corporations/Boards/ Departments

Email/Internet connectivity:

In H.P. Secretariat, Shimla, one SCPC VSAT is installed to cater to the needs of **Internet browsing/ data transfer and E-mail facility** to the state government departments on LAN as well as dial-up. Another SCPC VSAT is dedicated for the use of Video Conferencing facility extended to State Government departments. It also serves as a backup data channel. One SCPC VSAT each is installed at Mandi and Dharamshala. There are as many as 237 users (including 64 dial-up) provided with INTERNET/E-mail facility at Shimla and around 40 users at Mandi and Dharamshala.

Future Plans:

- ✦ Setting up of the Himachal Pradesh State Wide Area Network (HIMSWAN)
- ✦ Implementation of LokMitra on the Internet for G2C Services covering all districts
- ✦ Pehal-Establishing E-Governance Centres in all Districts/ Sub-divisions

The State Government, in its IT policy, has acknowledged that **in Himachal Pradesh, the efforts regarding E-Governance have been largely NIC driven**. The State Unit of the NIC, headed by the State Informatics Officer, has been identified as the E-Governance Wing of the DoIT.

For further information, please contact,
State Informatics Officer
NIC Himachal Pradesh State Unit
HP Secretariat, Shimla – 171002
Email : sio@hp.nic.in



▶ Pramod Hirolikar, NIC Shimoga

Shimoga - Marching towards E-Governance

Shimoga District in Karnataka is a true picture of nature's bounty with landscapes dotted with waterfalls, swaying palms and lush paddy fields. The district, located almost in the center of Karnataka map is also known as the 'Rice Bowl of the State.' Jog Falls, the highest waterfalls of India and Agumbe, the Cherrapunjee of South India are located in Shimoga.

NIC at Shimoga

NIC Centre at Shimoga District was established in the year 1988 with an aim to provide computerization support to the local government and district administration. The NIC offices were set up in Zilla Panchayat Office Premises and District Magistrate's office. The initial task was to generate computer awareness among the local government officials and encourage them to use NICNET communication facility. Over time, the district unit got involved in various computerisation Projects catering to the needs of the District Administration, Zilla Panchayat and other state/central government departments. The district unit also contributed to the e-governance drive by designing websites



for all the three major departments of Shimoga District i.e District Administration, Police Department and Zilla Panchayat.

Major Accomplishments

▶ **Jana Samvedana** : A Grievance monitoring system called 'Jana Samvedana' – a unique software for Mass Contact Programme conducted every week by the District Administration. This software has two modules, one for the Block level implementation and the other for the Sub-

Divisional and District level implementation. This software generates various reports and helps the District Administration in monitoring and faster disposal of the Grievances.

- ▶ **Bhoomi (Land Records Computerisation):** NIC Unit successfully implemented the Bhoomi project in all 7 talukas of Shimoga District. A total of 3.5 Lakh RTC's have been computerised. The District administration has provided unique concept of displaying the RTCs to the farmers by installing Television sets in place of traditional monitors.
- ▶ **GRASP (Grants and Releases Accounting Software Package):** This software is used by Zilla Panchayat Accounts section. The software automates the flow of government Grants/Releases to the respective Implementing Officers of different departments.
- ▶ **Zilla Panchayat Accounting Package:** The District Unit of NIC is providing total support to the Zilla Panchayat Accounts Section. A package is developed by local unit for computerisation of accounting process. The package is used for entering the daily voucher details of both the Zilla Panchayat Accounts and Taluka Panchayat Accounts. The software generates various reports for both monthly and annual accounts for submission to Accountant General Office.
- ▶ **Internet Scenario:** NIC Shimoga has played an instrumental role in design and development of three popular websites for District Administration, District Police and Zilla Panchayat.
- ▶ **Zilla Panchayat Website :** First of its kind in Karnataka, this website was officially launched by Shri. S.M.Krishna, Hon'ble Chief Minister of Karnataka on 19th February 2000. The site presents the Organisational structure, Political Structure, Departments and their activities, Citizen centric



information of different developmental schemes taken up by the Zilla Panchayat and other important statistics related to Zilla Panchayat Office.
URL : <http://www.kar.nic.in/zpshimoga>

- ▶ **District Website Shimoga :** This website was officially launched by District Magistrate Shimoga on 26th January 2003. This site presents History, Geography, Industrial information, Educational and administrative details of Shimoga District. This site also covers e-citizen information like govt. telephone directory , bus and train timings, downloadable forms, maps etc.
URL : <http://shimoga.nic.in>

- ▶ **Shimoga Police Website :** This website was officially launched by Home Minister, Government of Karnataka on 1st June 2001. This site presents information about Shimoga police, organisational structure, Citizen charter services like Crime prevention guidelines, Circle wise police station details and contact information.
URL : <http://www.shimogapolice.org>

Other Activities

- ✘ Election Support : Shimoga District NIC was involved in computerising the Pre-Poll Statistics, Counting of Votes and Post Poll Statistics of Lok Sabha and Vidhan Sabha Elections.
- ✘ Implementation of different NIC software packages developed by the state and central units like CNA, AGMARKNET, AHVS, Samanya Mahiti, RGRHCL etc..
- ✘ Computerisation of payroll system for Zilla Panchayat Office and District Magistrate's office.
- ✘ Providing NICNET facilities to different departments through dial-up network.

Contd. on pageNo.12 (col.3)



► Dilip Kr. Debnath, NIC Arunachal Pradesh

East Siang - The Gateway to Arunachal

East Siang District in Arunachal Pradesh derives its name from the mighty Siang River. Established in 1911, it is the first district of Arunachal Pradesh to have a modern administrative setup. As per Census 2001, the population of the district is 87,430 and the District Headquarters is 'Pasighat' which is one of the important townships in the State.

◀ | NIC-East Siang

The NIC District Unit of East Siang, Pasighat was setup in 1990 with the objective of promoting Informatics culture in the district administration and employees. It is presently involved in several important ICT activities for promoting E-governance in the District.



◀ | Key Activities

┆ Inner Line software

Since Arunachal Pradesh is a protected area, "Inner Line Permits" are required by the tourists visiting the State. For the concerned department, NIC has developed an Inner line software package in MS-Access, which keeps daily track of fresh, and renewal cases of Innerline permits issued as well as the revenue generated everyday from this activity.

┆ Trade License Software

A Software on similar lines has been developed for Trade License Branch for Issue and Renewal of Trade Licenses. Reports are generated on Trade licenses

issued, renewed, daily receipts along with fees & late fine calculations. The software is being extensively used by the Department.

┆ **Arms License Software:** For the Judicial Branch of the administration, NIC has developed an Arms License software package in MS-Access, using which, reports can be generated based on applications for issuance of fresh licenses for various types of guns and renewal of the same along with the requisite fees.

┆ **Monthly Expenditure Software:** NIC has developed a monthly expenditure software for district's General Hospital to generate monthly reports on revenues earned from diagnostic tests as well as reports generated head-wise for expenditures like salary, stationery purchased, etc.

┆ **Paybill Software**
For the Accounts Department, NIC has developed a complete Payroll Package in MS-Access and implemented it from March 2001 onwards. The software is finding extensive application in their monthly payroll printing, especially the TR-22 forms which were once a manual and cumbersome process. The software also has provision for generating Challans, Bill Extract, Schedules etc. These forms are also being accepted by the Bank and Treasury.

◀ | District Web Site

The Website of East Siang district developed by NIC was launched on 26th of March, 2003 at <http://eastsiang.nic.in> by the Deputy Commissioner, East Siang District, Pasighat. The Site comprises data and information pertaining to the District Administration, Major Departments, Tourism, Entry formalities for entering the District etc. Important Downloadable forms for availing various citizen services have also been put up. Photo Gallery is one of the attractive sections for encouraging tourism in this

area of un-spoilt natural beauty.

◀ | Other Activities:

- ✂ NIC has provided LAN connection as well as Internet Connectivity to several user departments, some of which are located at far-flung areas.
- ✂ NIC is imparting training to employees of various Government Departments and also to those who are involved in Centrally sponsored schemes like AGMARKNET, 7th AISES project, PMGSY and BPL survey.
- ✂ Monitoring and promotion of CIC project is being done regularly so that maximum public utility can be achieved through CICs.

NIC East Siang District Unit

District Informatics Officer
Debdeep Guha

For further information, please contact:

District Informatics Officer
East Siang District, Pasighat
Arunachal Pradesh
Phone: 0368 – 2222545
Email: siangpas@hub.nic.in

Contn. from P-11

In the Words of Deputy Commissioner, Shimoga, Mr. Tushar Girinath, IAS

" NIC Shimoga is a very vibrant and result oriented unit. District Administration has used the NIC technical and human resources extensively for accomplishing the objectives of resource mapping, planning and grievance redressal. NIC has been involved with development and maintenance of 'Bhoomi' software, which is the pride of Karnataka. They have developed Shimoga's website <http://shimoga.nic.in> in a very short time. I thank NIC for their support of all District level initiatives taken by us and solicit their co-operation in future. I wish them all the luck in their endeavors."

NIC Shimoga District Unit

District Informatics Officer
Pramod Hirolikar
District Informatics Associate
Cherla Ramakanth

For further information, please contact
District Informatics Officer,
National Informatics Centre, Zilla Panchayat
Office, Shimoga (Karnataka)
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Hari Chand, Haryana Correspondent

Ekal Seva Kendra – Bringing IT and People Closer

"EKAL SEVA KENDRA" has been setup by National Informatics Centre, District IT Cell, at the district Secretariat, Kaithal (Haryana) with a mission to bring district administration closer to public by providing time bound, hassle free, single point delivery of services. The center aims to provide its services in a professional and citizen friendly environment. Separate counters have been setup with a seven-node Local Area Network. All services from distribution of application forms to medical examination/photography of applicant and delivery of certificates/documents are being provided at these counters. Receipts are provided to public on which time of delivery is mentioned. Infact, total integrated solution is provided by NIC for the following services included in the programme.



The Services:

- ✗ Driving Licence (Learner/Permanent/Renewal/Duplicate/Addition of Class etc.)
- ✗ Conductor Licence (Learner/Permanent/Renewal/Duplicate etc.).
- ✗ Vehicle Registration (New/Transfer/NOC/Addition & removal of HPA etc.).
- ✗ Caste Certificate.
- ✗ Residence Certificate.
- ✗ Nakal (Revenue Document) service.
- ✗ Birth and Death Certificate.
- ✗ Passport application acceptance service.

Objectives:

- ↓ Time bound delivery.
- ↓ On the spot Computerised scrutiny of

documents.

- ↓ Single point contact : Services under one roof.
- ↓ Simplified procedure :Total Transparency.
- ↓ Easy & Effective monitoring :Fixed accountability.
- ↓ Total solution: All activities computerised.
- ↓ Elimination of issuance of bogus/fake licenses.
- ↓ Elimination of Middleman
- ↓ Automatic generation of periodic Account/Audit statements.
- ↓ Quick search facilities.
- ↓ On line/ Offline MIS reports.
- ↓ Reduced clerical workload.
- ↓ Self-sustained project.

Technology behind the Kendra

NIC developed and implemented all software used at 'EKAL SEVA KENDRA'. These software are highly versatile, robust and scalable. Most of them use Visual Basic as front-end and SQL Server as back-end. Databases are designed considering the best and latest security techniques. One server, seven nodes, four Dot Matrix printers, two LaserJet printers, one Inkjet printer, Digital Camera and Signature Pad are ultimately planned to be installed at the site using Local Area Network having connectivity with DC, ADC, SDM and NIC Offices.

Operational Aspects

↓ "SARATHI", National level software, which provides comprehensive and integrated solutions for issuance of driving licence, has been implemented. Driving test date is booked as per applicant's choice and the modularity of software has been designed to ensure the delivery of the licence in stipulated time period and for generating cash/audit statements.

↓ "VAHAN", National level software has been implemented for the solutions of

vehicle registration related work. Software has provision of online scrutiny of the documents and booking of vehicle inspection date as per applicant's choice. Several types of MIS reports for the District administration and other agencies like police, insurance companies etc. can be generated instantly.

↓ "HarCIS and BDMIS" Software are implemented for issuance of certificates of Caste(SC/BC/OBC), Haryana Residence and Birth & Death. The Kendra is issuing certificates instantly on submission of verified document and in case of non-verified document certificate are being issued within stipulated time period.

↓ "NAKAL" of *Jamabandies, Mutations* and *Khasra Girdawari* are being issued from this counter within stipulated time frame. NAKAL are being generated from the online computerised data available as well as from the manual records.

↓ "WEBPASS", National level software by which a computerised file reference number is being issued to the passport applicants and after scrutiny, these are forwarded electronically to Regional Passport Office for issuance of passport.

Self Sustainability

The entire project has been setup without any budgetary allocation from the Government. The District Red Cross Society, Kaithal, is meeting all running expenses including those of manpower. For this purpose, a nominal contribution from the users has been charged for each service. All the service charges are inclusive of the facilities such as on the spot Blood Group Test wherever applicable, government prescribed forms, Photographs, Lamination of documents, Booklet of Traffic rules & symbols, File Folders etc.

The System is technologically foolproof and upgradable to provide more such services and information in future. **Through the Ekal Seva Kendra, NIC has attempted to set-up a Centre which is people friendly, need based, technologically empowered and self-sustaining.**

For further information, write to
harichand@hry.nic.in



▶ N.K. Prasad, Bihar Correspondent

TACKIS - Tax Compliance Knowledge Information System

In the modern world, administration of any revenue law has become a technical and, more often than not, a contentious issue. Revenue management is the key to economic stability and development. In the present day world, IT Tools have become crucial for efficient revenue management. The Finance (Commercial Taxes) Department, Govt of Bihar, has foreseen the role IT can play in streamlining fiscal management and imparting impetus to resource mobilization and has, accordingly, embarked on a project to fully computerize its activities.

Finance (Commercial Taxes) Department

The Finance (Commercial Taxes) Department is the most significant revenue-earning wing of the Government of Bihar. It is the largest revenue earner for the Govt. of Bihar as it contributes more than 70% of total tax collection in the State. Keeping track of the kind of activities yielding revenue for the department becomes difficult and time consuming when carried out manually and it is here that an effective utilization of Information Technology can prove useful.

TACKIS - Introduction & Scope

The computerization of Commercial Taxes envisages micro and macro level automation and trend analysis. At micro level, the scope of the software solution is to administer Commercial Taxes at circle level. At macro level the scope is to provide knowledge management system to monitor the distribution network of companies and dealers in the state of Bihar at the HQ. TACKIS is designed for macro level analysis e.g., monitoring of Tax Behavior and management of Tax Compliance. It is fashioning the dream of Finance (Commercial Taxes) Department, Govt. of Bihar into reality.

Objectives

- To monitor the Distribution Network of Companies.

- To monitor the Tax Compliance of Dealers.
- To estimate and widen the Tax Base of the Department.
- To estimate fresh potential for Revenue.
- To increase the revenue collection by tapping the latent potentials in the state economy.
- To unearth incidences of tax evasion and plugging tax.
- Realization of Arrears.
- Improved and efficient Knowledge Management of revenue collection.
- To establish a basis for implementation of Value Added Tax (VAT).

Challenges to meet

- Collection of data regarding sales of Companies.
- Analysis of approximate market size of these Companies and their relative market share in Bihar in the light of macro economic indicators.
- Collecting data regarding purchases and sales of dealers and assessing their tax potential.
- Ascertaining the realization of Additional Tax when the consumer goods are re-sold down the line.
- Identifying and bringing new / left out dealers under sales taxation.

Sources of Data

- Records of the Companies dispatching goods from outside the State.
- Depots, Branch-Offices, C&F Agents and Consignee Agents of the Companies established inside the State.
- Purchase and Sales carried out by the Dealers or the Distributors in the State.
- Payments made and Returns submitted by the Dealers (Output of STAMINA, a macro level software developed by NIC Bihar State Unit, running at Commercial Taxes Circles in the State).

Analysis carried out by TACKIS

- National level performance indicators of companies vs. their respective share of business in the State.
- Distribution Network of the Companies within the State, e.g., Depots, Branch-Offices, C&F Agents and Consignee Agents, Dealers/Distributors.
- Taxable as well as Tax-Paid sales of various Companies to their Dealers within the State.
- Purchases and Sales of individual Dealers and Tax deposited by them.
- Tax Compliance and Tax Behaviors of Dealers.

Status of Implementation

TACKIS is being used effectively since last one year at Finance (Commercial Taxes) Department, Govt. of Bihar. It has not only helped in computerizing Distribution Network of all C&F Agents, which contributes more than 80% of the total Commercial Taxes Revenue, but also records the Dealer-wise Purchase, Sale, and Tax deposited figures.

Impact

TACKIS has so far created additional revenue of more than Rs. 250 Crores, which would otherwise remained un-earthed. This has become a boon for a poor state like Bihar.

Future Application

TACKIS has recorded a grand success in the State of Bihar. It can be easily configured and implemented in other States for turning Distribution Networks into fully tax compliant systems. Senior Officers from other States have seen the software and shown interest in implementing the same in their respective States.

In the words of Sh. Sudhir Kumar, IAS, Commissioner & Secretary... "TACKIS, an application software for effective monitoring of the distribution chain operating in Bihar and the tax implications, is the result of a concerted effort on the part of the NIC and the department ... It is among the most wonderful applications of IT "

For further information, please email at sio@bih.nic.in



► CSR Prabhu, NIC Andhra Pradesh

ONLINE Counselling & Admissions at Andhra

NTR University of Health Sciences in Andhra Pradesh is responsible for conducting admissions into various medical courses mainly MBBS, BDS, BPT, B.Sc. (MLT), BAMS, BHMS, BUMS and admissions into post graduate diploma courses in various branches of medicine. The University invites applications from prospective students and then prepares merit list based on rank issued by Convener of Common Entrance Exam. The admissions into the above courses are to be done as per the reservation policy defined by the Government from time-to-time. The entire admission process depends basically on two parameters viz. Local area of candidate and Caste category of candidate. In order to smoothen out the process and make it faster and convenient, online counseling and admissions system has been implemented by the NIC Andhra Pradesh State Unit. In the State, 4 sub-categories in Scheduled Caste and 4 sub-categories in Backward

Classes exist. In addition, the Government has issued 33.3% reservation to women. In order to make the admission process transparent to the students and parents, the vacancy position and the list of selected candidates in the order of rank is displayed at different locations by using large display screens.

The entire process of admission is divided into 4 stages:

1. At the registration counters, candidates called for counselling in that session get their arrival status registered.
2. Verification of certificates - Certificates of the students and the Caste Certificate, if required, will be verified by the officers concerned and the acceptance / rejection of candidate will be indicated through the system
3. Counselling and selection - Candidate who is on the next rank to select seat

will be shown the availability position depending on his/her local area and category of the seats he/she is entitled. The candidate will select seat of his choice and proceed to the Bank counter to fulfil necessary formalities. The information pertaining to previous admissions, if any, is displayed on the screen for the reference counselor

4. Selected candidates pay the required fee at the payment counter.

Payment of fees

The entire process is done using Windows 2000 server with VB as front end and MS-Access as back end and the crystal reports for generation of various reports. The entire setup has 2 servers and 15 clients connected in LAN and the client to server access is through terminal control services in Windows 2000. The reports which can be generated include College-wise students admitted, Rank-wise list of candidates and Total amount collected (Bank-wise). The package can be adapted for any kind of admission by customizing the local requirements.

For further information, mail to sio@ap.nic.in

► CSR Prabhu, NIC Andhra Pradesh

Prices Over Phone (IVRS)

Interactive Voice Response is a form of Computer Telephony (CT) that allows people to interact with a computer through their telephone. For the first time in the country, Computer Telephony Integration technology has been harnessed by NIC in designing and developing an application for the benefit of farmers. The service was formally



inaugurated by the Hon'ble Chief Minister of Andhra Pradesh Sh.N Chadrababu Naidu at a function held in Hyderabad.

Using this technology, the prices of commodities (minimum, maximum and modal) prevailing in various markets in A.P can be obtained through an ordinary phone by the information seekers, without any manual intervention. No prior training is required to get the prices information, as customer need not touch any key board or mouse. Due to local language interface, the farmers can interact with the system comfortably in local language. This system has been conceptualised, designed and developed by the GISTNIC Division, National Informatics Centre. The cost of establishing such a service was quite affordable for the Market Department of

Government of Andhra Pradesh. In default mode, the system announces the maximum, minimum and modal prices of a few prominent commodities. However, the user can obtain maximum, minimum and modal prices of a chosen commodity across the state or can choose a market to obtain the prices prevailing over there. As the system reads the information from a central server, periodically every few hours, more latest prices as per reported information, are announced automatically. 'Prices over phone' service is at present available from four locations in Andhra Pradesh, - 1. Marketing Department, State Head quarters, Hyderabad, 2- AMC Vijayawada, 3. AMC Karimnagar, 4- AMC Cuddapah. It is proposed to cover all the important markets in the state by installing more such systems. This IVR software has been standardised and reusable for other markets in the country.

For further information, write to gistnic@ap.nic.in



▶ J. Thakur, NIC HQ

GOI Directory - A Gateway to Indian Government Websites (<http://goidirectory.nic.in>)

On the eve of the 57th Independence Day, the launch of the new version of GOI Directory (<http://goidirectory.nic.in>) added a new dimension to e-governance in India. The Directory of Websites of Government offices and organisations in India encompasses all government entities at all levels and from all sectors. For the first time after Independence, government offices having web presence - belonging to both Central and State governments - have been showcased under a single **Digital document** for the benefit of the citizens of India and global viewers. Though a preliminary version was launched in 2000 with only 8 broad categories when the concept of web site development was gradually spreading along the Government spectrum, soon this version was found to be insufficient to precisely accommodate all sorts of government entities surfacing on the web. Based on users' feedback received from across the globe, a thorough reorganisation of the web directory was felt necessary. Detailed studies and extensive interactions with various Ministries and Departments were done to ascertain various kinds of government offices and organisations existing in India. This culminated in the new comprehensive version of the GOI Directory that can suitably accommodate any government offices or organisations at any level starting from the highest seat of the Office of the President of India to the grassroot level of a Panchayat Office. GOI Directory thus serves as a single window for all e-information of Indian Government.

☞ **Cyber Presence**

The GOI Directory is a unique effort of NIC to project the cyber presence of Indian Government before the global community in the era of E-governance. Many of the websites included in the directory facilitate direct Government to Citizen (G2C) as well as Government to Business (G2B) interaction.

☞ **Authentic Information**

The directory includes information about only *official* websites of government



entities, thus providing the visitor authentic information.

☞ **Extensive Categorisation**

The directory is extensively categorised first into broad categories and then each broad category is further divided into numerous sub-categories to cover all entities of Indian Government at all levels as mentioned below.

☞ **Executive**

President, Prime Minister, Central Government Ministries, Departments, Offices under Ministries/Departments, Apex Offices/Institutions

☞ **Legislature**

Indian Parliament, Rajya Sabha, Lok Sabha, State Legislative Assemblies and Legislative Councils

☞ **Judiciary**

Supreme Court, High Courts, District Courts, other judicial entities

☞ **States and Union Territories Districts**

Government Departments, Agencies and Institutions

☞ **Organisations / Banking, Financial and Insurance**

☞ **Institutions**

Co-operatives, Cultural, Educational, Health and Medical Public Sectors and Joint Ventures, Scientific and Research, Sports, Tourism and Hospitality

☞ **Committees**

Committees, Commissions, Working Groups, Missions, Taskforces

☞ **Documents**

Budgets, Plans, Policies, Reports, Results, Surveys

☞ **Miscellaneous**

Events – Seminars, Conferences, Workshops

☞ **Unique Organisation**

One-of-its-kind, for the first time, all Indian Government offices under Ministries/Departments are organised according to their individual mode of functioning and relation with the parent Ministry/Department such as Attached office, Subordinate office, Autonomous institution/organisation, Division/Unit/Wing of the parent organisation, PSU/JV, Society, Statutory Body, etc. presenting the exact status of individual offices.

☞ **Easy Access**

Ease of Access and navigation are useful features of this directory. Hosted on a state-of-the-art server at NIC and backed by high-bandwidth, the directory is easily and quickly accessible from any part of the world. From a broader view to specific requirements, level-by-level arrangement of websites make the navigation both comfortable and enjoyable for the user.

☞ **State-of-the-Art Technology**

Developed using state-of-the-art technology and powered by database, the directory provides extreme flexibility to reflect any changes in the status and relationship of government organisations as and when required.

☞ **Comprehensive Search**

Powered by a user-friendly, extremely fast search engine with both keyword and URL based search options, the user can mine millions of webpages for his or her government information in no time.

☞ **Participatory Approach**

Though a lot of effort is put to keep the directory updated with new websites, the directory invites participation of visitors as well as government offices by allowing them to directly participate in its development through 'Suggest A Site' and Feedback forms.

☞ **Value Additions**

The Directory announces all New Additions in the Directory indicating the categories under which the new sites have been entered. At the same time, the directory reveals the actual Statistics of web sites reflecting the number of sites included under each category.

For further details regarding GOI Directory, please email at goidirectory@hub.nic.in



Dibakar Ray, NIC HQ

Computational Challenges in Bio-Informatics

The definition of bioinformatics is not universally agreed upon. The most authoritative one by Biomedical Information Science and Technology Initiative (BISTI) (<http://www.bisti.nih.gov/>) at National Institute of Health is - "Research, development or application of computational tools and approaches for expanding the use of biological, medical, behavioral or health data, including those to acquire, store, organize, archive, analyze or visualize such data".

From a computational perspective the goals of bioinformatics are :-

- ✦ Analysis and interpretation of various types of biological data including nucleotide and amino acid sequences, protein domains and protein structures.
- ✦ The development and implementation of tools that enable efficient access, use and management of these data sets.
- ✦ The development of new algorithms and statistical methods to assess relationships among members of large data sets.

What makes bio-informatics relevant and such an important topic is its many practical applications in different areas of biology and medicine like creating new drugs, discovering cures for genetic diseases, improve diagnosis of disease, detect genetic predispositions to disease, create drugs based on molecular information (smart drugs), cloning threatened species, creating new biomaterials for military and civilian applications, and creating high-yield and disease-resistant crops to feed the world's growing population.

Biotechnology, being the thrust area of research, is producing genomic data at an exponential rate. This growth in data along with its increasing complexity has thrown quite a few challenges. From computer science perspective challenges in bioinformatics can be divided into number of areas, of which we will discuss about data management and organisation, data mining, high performance computing, and algorithms.

✦ | Data Management and Organisation

In the early years handling of bioinformatics data used to be carried out by individual research groups. With advent of new automated experimental methods, which are increasingly generating enormous amount of data, storing and organising these complex data were made responsibility of national and international initiatives. Initially these

databases were simple flat files, however increasingly relational databases are being used for better performance. Web interface has become an integral part of such databases for retrieval and analysis of the content of the database. The challenges in the field of data management and organization can be grouped as -

- ✦ How to incorporate data and annotation emerging from different sequencing centers into a searchable resource, providing a single, robust point of access and a user friendly interface, with extensive links to relevant resources and databases under development elsewhere.
- ✦ How to integrate genomic data with existing and future experimental result related to genome mapping, gene expression, protein function, protein-protein interactions, metabolic pathways etc. in both graphical and text based formats.
- ✦ How to establish a database that can incorporate sequence information from other related species.
- ✦ Providing web based access, email-based access in order to ensure full access to the sequence and related resources to all regardless of geographic location.

Development of whole genome database of malaria causing *Plasmodium falciparum* (<http://plasmodb.org>) is an attempt to answer such challenges and can provide valuable guidance in future developments.

✦ | Data mining

As mentioned earlier high-throughput techniques and functional genomics generate large amounts of data. This ever-growing amount of data requires not only sophisticated tools for storage and retrieval but also tools for analysing and interpreting content hidden in it which is not immediately intelligible. Data mining techniques are being used to discover new, previously unknown and hidden patterns in large data set, and to represent and interpret those patterns in a human intelligible way. The common data mining tools are clustering, classification, dependency modeling, and regression, but more advanced techniques are required to identify different and unknown structural patterns. The fields of Natural Language Processing, logic, artificial intelligence, ontologies are being used more and more to find meaningful information from this flood of data.

✦ | Software development and Algorithm

Researchers in bioinformatics generally prefer to develop software tools required for their very specific area of research. Generally speaking, algorithms used in such programs are often found to be too simplistic and not optimised. Most of the cases they need modification in some way or other to fit into the structures and requirements of problems of other researchers. The data processing logic in these software are typically written using conventional programming languages (e.g., C, Fortran or Java) for the basic algorithms and scripting languages like Perl are used as the glue between the different components. Such an approach leads to logic that is extremely difficult to modify. This situation calls for application of better software development strategy and software engineering methodologies in developing bioinformatics software.

Yet another challenge in development of bioinformatics software tool is algorithm development. Special problems in the area of bioinformatics is that programs are very computationally intensive, so development of better algorithms in terms of resource requirements are a great challenge. Areas where better algorithms are a pressing necessity are sequence alignment, protein structure prediction, protein function prediction, protein protein interactions etc.

✦ | High performance computing

Many biomedical problems like microarray gene expression data analysis, multiple sequence alignments, genetic network, biochemical network, protein-protein interactions, phylogeny reconstruction, genetic linkage analysis, protein structure prediction, etc. require computationally intensive numerical operations on a large data domain. They take an enormous amount of computational time and make it impractical to solve them on uniprocessor or multiprocessor based computers. Parallel computing can be applied to solve those numerically intensive biomedical problems. Among number of available architectures, Linux-based Beowulf clusters are providing a high-performance and inexpensive alternative solution. Beowulf cluster is built primarily out of commodity hardware components, interconnected by a private high-speed network. Setting up and fine tuning such clusters requires considerable effort and expertise in operating system and communication. Developing programs which can harness power of parallel processing is also a considerable challenge.

An inter disciplinary and systematic approach is necessary to overcome these challenges and develop better and efficient tools for bioinformatics which will help the country in a long way to fight against disease and hunger.

For further information, please write to dibakar@hub.nic.in



CYBER GOVERNANCE

A Glimpse of some of the new websites launched on NIC's web servers under the "India Image" Programme during the past quarter.....

Krishi Marata Vahini

Krishi Marata Vahini is a bi-lingual (Kannada and English) Regional portal developed by NIC Karnataka to strengthen the AGMARKNET Programme in the State.

The Portal is a complete web enabled agricultural market information system covering all the markets in Karnataka State. The Portal was inaugurated by Hon'ble Chief Minister of Karnataka Sh S.M Krishna in presence of Dr. N. Vijayaditya, DG(NIC) and Sh. M. Moni, DDG (NIC). The portal gets updated directly from markets everyday and provides marketwise, commodity wise, daily and periodic report. Information on the status of updation and holiday details are also available on daily basis. Krishi Marata Vahini will be available through IVRS shortly.



P.Shreekrishna Bhat, NIC Karnataka

ROC Kerala <http://rockerala.nic.in>

Registrar of Companies (ROC), Department of Company Affairs is vested with the primary duty of registering companies and ensuring that such companies comply with statutory requirements. This Site, designed by NITPU Cochin, provides information regarding the various procedures to be followed by companies. The Name Application Status Query helps a promoter to check the status of his application by entering just the Application Number or the first name without having to visit the Office of ROC. Besides, information is provided about ROC, the List of Defaulting

Companies, List of Returns to be filed, Details of Filing Fee, Corporate Growth Chart, Press Notes, List of Holidays & Working Hours, FAQs etc.

Sh. Sameer Biswas, Regional Director, Dept. of Company Affairs inaugurated the ROC Kerala Web Site in the presence of Sh. Henry Richard, Registrar of Companies, Kerala, Hon'ble Justice K. J. Mathew, and Officers and Staff of NIC, NITPU & ROC.

Julie Zachariah, NITPU Cochin

Distt Kinnaur, Himachal Pradesh <http://hpkinnaur.nic.in>

The district website of Kinnaur was launched by Sh. Virbhadra Singh, Hon'ble Chief Minister, Himachal Pradesh on 2nd September, 2003 at Shimla. The website has been developed by the District Administration, Kinnaur and NIC, Himachal Pradesh. The website provides information about the History, Culture, Tourism, Facts, Administration etc. The Tourism section is very elaborate and covers everything a tourist may like to know before actually visiting the district.



Ajay Singh Chahal, Himachal Pradesh

Industrial Portal, Haryana <http://haryanaindustries.nic.in>

An Industrial portal of Haryana government has been developed by NIC Haryana State Unit with the purpose of facilitating the entrepreneurs to file online application for setting up an industry in the State. At

present, four major government departments viz. Industries Department, Labour Department, Pollution Control Board and Environment Department are involved in this portal. The Portal would facilitate anyone:

- To file applications online for services and facilities and obtain information about their status.
- To obtain information, downloadable forms and procedures in respect of services, clearances and facilities being provided by various departments and organizations.
- To file periodical returns online ; and
- To file grievances online using the online grievances monitoring system (OGIS) of NIC.

In addition, all the involved departments can check and update the status of applications related to them online, thereby enabling them to interact with the entrepreneurs through web.

Hari Chand, Haryana Correspondent

Tamil Nadu Rural Bazar <http://www.ruralbazar.tn.gov.in>

Rural Bazar website is a new initiative from the Department of Rural Development, Government of Tamil Nadu and NIC, in popularising the fine creations of rural genius. The site, which was launched by the Hon'ble Chief Minister of Tamil Nadu, provides information on more than 700 products produced by the Rural Women Self Help Groups. Online ordering facility has been provided which enables the customers to place orders through the Internet. The site was developed by NIC Tamil Nadu State Unit in consultation with Rural Development Informatics Systems Division.

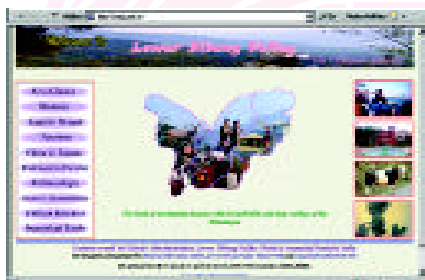


R. Gayatri, Tamil Nadu Correspondent



☞ | **Lower Dibang Valley, Arunachal**
<http://roing.nic.in>

The Official Website of Lower Dibang Valley District was recently inaugurated by Sh. Roding Pertin, Hon'ble Minister of Environment & Forest, Government of Arunachal Pradesh at a special function in the presence of Deputy Commissioner, all Heads of Departments, Zilla Parishad Chairman, Anchal Samity Chairman, all public leaders and other officials. All visitors showed great enthusiasm to see the website which has plenty of information about the District, its history, archaeology, flora and fauna as well as citizen services being



provided by the Administration.

Tasso Habung, Arunachal Correspondent

☞ | **Coconut Development Board, Kochi**
<http://coconutboard.nic.in>

The Coconut Development Board (CDB) with its headquarters at Kochi in Kerala is a statutory body established under the Ministry of Agriculture, Government of India for the integrated development of coconut cultivation and industry in the country with focus on productivity increase and product diversification. Details about CDB Offices, Mandate, Functions of the Board, CDB Services, Acts, Rules & Regulations, Schemes



of CDB, Technology Mission on Coconut, Coconut Products of India, Application Forms, Video & Publications Online Order Forms etc. are provided in this Site, which has been recently re-designed by NITPU Cochin.

Julie Zachariah, NITPU Cochin

☞ | **Agriculture Deptt, Haryana**
<http://agriharyana.nic.in>

The Web site of Agriculture Department of Haryana Government was recently launched. The website contains, beside general information, the detailed information on Agriculture extension programme, Agriculture Information services, Soil conservation activities, Soil testing facilities, Agriculture engineering, Ground water cell, Plant protection and Integrated pest management, Bee keeping, Details of district wise consumption of fertilizers and pesticides, Lists of notified varieties of seeds in the state, Seed producing agencies in the state, Sugarcane varieties, crushing capacity of the units in the state etc. and information about the Kandi projects of the state (IWDP and HOPP).

Hari Chand, Haryana Correspondent

☞ | **High Court, Uttaranchal**

The Hon'ble Governor of Uttaranchal Sh. Sudershan Agrawal during his recent visit to Nainital inaugurated the official web site of High Court of Uttaranchal in the presence of Hon'ble Chief Justice of Uttaranchal Mr. Ashok A. Desai and other dignitaries. The website has been developed and hosted by NIC Uttaranchal State Unit.

Apart from the web site, the Hon'ble Governor also reviewed the working of newly developed software developed by NIC for the High Court computerisation. Sh. Prafulla C. Pant (H.J.S) Registrar General, High Court of Uttaranchal appreciated the work of NIC team led by Sh. Deep Kumar, Officer-in-charge of the Project.



Rajesh Goyal, NIC Uttaranchal

☞ | **Balangir Distt, Orissa**
<http://balangir.nic.in>

Balangir District of Orissa recently stepped into the world of web with the launch of its website. The site is rich with information on Topography, Demography, History, Culture, Places of Tourist interest etc. Various Public Utility forms have also been provided for download. The site, developed by the NIC District Unit team comprising Sh S.P Dash, DIO and Sh C.V.K.M Rao, DIA, was formally inaugurated by Sh. A.U Singh Deo, Hon'ble Minister for IT in Orissa Govt.



A.K Hota, Orissa Correspondent

Notice
Website Registration Automated

In order to facilitate and streamline the procedure for Website Registration at NIC HQ, an automated system has been initiated whereby the requests for website registration can be submitted Online. In an attempt to make this system fully secure, an authentication mechanism has been worked out and User IDs/passwords have been created to submit the website registration requests online. At present, this facility is open ONLY for SIOs and HODs of NIC.

Visit <http://webservices.nic.in> for further details



HAPPENINGS

A Glimpse of e-governance activities carried out by the various NIC Centres during the past quarter...

Computerisation of District Court at Alappuzha

Alappuzha District of Kerala has become the first district in the State to have a fully computerized Enquiry Counter at the District Court. NIC initiated the District Court Computerization programme at Alappuzha in 1999. With the active co-operation of the District Judge and the other officers, the District Court Information System (DCIS) was implemented. All the cases filed during the day are entered into the system and the database is up-to-date. Apart from the case details, the daily proceedings of the court are also entered. Due to its achievements in Courts Computerisation, Alappuzha District has become a Model District in the State. NIC recently setup a facilitation counter for helping the general public in getting their case details. The Counter was inaugurated recently by the Hon'ble Justice Kum. Lekshmiikutty, Judge, High Court of Kerala in the esteemed presence of Hon'ble Chief Justice R.L.Gupta and other dignitaries. Hon'ble Justice Kum. Lekshmiikutty in her inaugural speech said *" This breakthrough would not have occurred but for the whole hearted support of the NIC team comprising Sh. Saji K Abraham, DIO, Smt. Parvathy, DIA and Sri. T D Jainendrakumar, State coordinator of Kerala. I heartily thank them for the support extended to us to accomplish this milestone achievement."*

Saji K. Abraham, NIC Alappuzha



GOANET Inaugurated

GOANET, the Intranet of Government of Goa was inaugurated on 30 May 2003 by the Hon'ble Chief Minister, Sh. Manohar Parrikar. GOANET has been set up to inter-connect all Departments, Collectorates, Taluka Offices, Block Offices and Village Panchayats. It is planned to provide all Government services to citizens on-line through Government offices and Mahithi Ghars networked through GOANET. All 11 Taluka Offices, both the District Collectorates, 3 Mahithi Ghars, one RTO Office (Panaji) and two City Survey Offices have already been connected to GOANET through dedicated Leased Lines. Database and Application Servers for Land Records and RTO Applications are also co-located at the central Hub. The services currently available through GOANET include issuance of Form I & XIV (Record of Right) of all Villages, On-Line Mutation, Learner's License etc. Many more utility services are proposed to be included in the near future. Beside GOANET, a Touch screen based Enquiry Counter at Panaji Collectorate for facilitation of information dissemination was also inaugurated by the Chief Minister on the same day.

C.Chandran, NIC Goa



Review of LRC in Rajasthan

Sh. Madho Singh Diwan, Hon'ble Information Technology Minister, Government of Rajasthan recently reviewed the status of Land Records

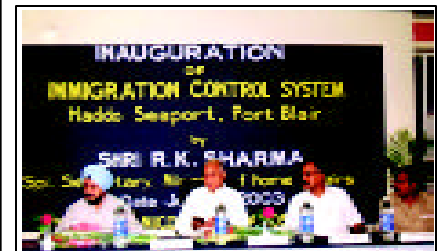
The Secretaries to the State Govt for IT and Revenue were also present in the meeting, apart from other dignitaries. Hon'ble Minister congratulated the officials associated in the Project for successfully implementing the Project in 206 Tehsils of the State and appreciated NIC's role in the endeavour. All the activities carried out in the Project ever since its inception in the State were highlighted in a presentation by Smt. Indu Gupta, SIO Rajasthan, who also demonstrated the Tehsil Level Land Records Software.



Deepak Bhargava, Rajasthan Correspondent

Immigration Control Software at Andaman & Nicobar Islands

The newly Computerized Immigration Control System (ICS) developed by NIC has been implemented at Haddo Sea Port, Port Blair on 4th July, 2003. The Special Secretary, Ministry of Home Affairs, Sh. R.K. Sharma inaugurated the System at a function held at Haddo. The Chief Secretary, A & N Administration, Sh. Pradeep Singh presided over the function.



Gautam Gupta, A&N Correspondent

Office Automation Training at Bomdila

A two week long training programme on Office Automation was conducted jointly by NIC and ATI, Arunachal Pradesh at Bomdila for the Officers and staff of West Kameng District Administration. The training dealt with the basic concepts of computers and familiarised the participants with Windows,



MS-Office, Internet and Networking. The Course Director was Mrs. Y.W Ringu, ADC, Bomdila.

Sh. Deepak Gohain, DIO and Sh. N.Damodar Singh, DIA from NIC were actively involved in the Programme. The Deputy Commissioner of Bomdila, Sh. H.Rajesh Prasad presided over the valedictory function and appreciated NIC's efforts in conducting the Programme.



Dilip Kr. Debnath, NIC Arunachal Pradesh

☞ | **Integrated Marketing Information System for NAFED**

The Co-operatives Informatics Division of NIC has developed a Web based Integrated Marketing Information System for NAFED which will capture on-line, data from 30 branches of NAFED (located throughout the Country) on daily purchases, sales, import/export, stocks and processing of agricultural commodities. In the words of Sh. Ajit Kumar Singh, Chairman NAFED, " In order to have speed and efficiency in the marketing activities of the Federation, an online marketing facility has been developed by NIC which shall help in faster retrieval of all relevant marketing information". Sh. P.K Aggarwal, Managing Director of NAFED also expressed that the electronic system developed by NIC shall lead to a faster dissemination and exchange of information

IPS Sethi, NIC HQ

☞ | **Nagrik Seva Kendra at Vadodara**

The Hon'ble Chief Minister of Gujarat Sh. Narendra Modi inaugurated the 'Mamlatdar Management System' developed by NIC at Nagrik Seva Kendra in Vadodara District. Nagrik Seva Kendra is a single window service for the citizens to obtain various government certificates and affidavits. The System, developed by NIC supports Gujarati language and automates the procedure right from receipt of

application to approval to printing of various certificates.

Manoj P.A, Gujarat Correspondent

☞ | **Workshop-cum-Training on Agmarknet**

A two day workshop cum training was organised for the APMC Secretaries on the Agmarknet (Agriculture Marketing Information System) project at Patna recently. Sh. M. Moni, DDG (NIC) delivered a visionary lecture on ICT based Agricultural Information System. The workshop was inaugurated by Sh Sanjay Kr. Rakesh, IAS, Bihar State Agriculture Marketing Board.



Dr. Saurabh Gupta, SIO Bihar gave the introductory speech highlighting the benefits of the Project and Sh. P.K Suri, TD & National Project Co-ordinator presented the over-all National Scenario on Agmarknet. Sh. P.C Sahoo, NIC Bihar state Unit co-ordinated the workshop. 24 Bazar Samities are operational for Agmarknet data transmission in Bihar.

N.K Prasad, Bihar Correspondent

☞ | **Registration Software at Uttaranchal**

NIC Uttaranchal has developed a software AURES (Automation of Registrar of Society, Chits and Firms) with the help of which, registrations and renewals of different types of societies, firms and chits are being performed. Renewal activity of these societies generally takes place every year after the elections of members or any other related activities are completed. Duplication of name, very important from the point of view of registration, was difficult in manual process and has become easier to restrict after implementation of this package. The software has been developed in Visual Basic and MS-Access. It generates output in the form of reports and queries and meets the requirements of the officials at all

levels.

A.K Dadhichi, Uttaranchal Correspondent

☞ | **NIC Officers Honoured**

Many DIOs and DIAs of NIC in almost all the States are honoured for their meritorious services by the respective District Collectors every year on the occasion of Independence Day. Some Officers of NIC who were recently awarded for their contribution include the following :-



- **Sh. Pramod Sharma, DIA, Udaipur (Rajasthan)** who was awarded by Sh. Sudershan Sethi IAS, DC, Udaipur



- **Sh. M.M Khan, DIO Muktsar (Punjab)** who was honoured by Sh. Jagmohan Singh Kang, Hon'ble Minister of Animal Husbandry, Govt of Punjab



- **Sh. Sarbjeet Singh (NIC Punjab)** who was awarded, along with his team, for the successful computerisation of the employment exchange at Muktsar by Ch. Jagjit Singh, Hon'ble Minister for Labour and Employment, Govt of Punjab.



E-Granthalaya Software Released

A library management software developed by Karnataka State Unit was released by Dr. N. Vijayaditya, DG(NIC) in a function held on 23rd June 2003 at NIC HQ, New Delhi. The software has already been implemented in many libraries in India. The software is a standard package for library automation having all the modules for inhouse operations of a library. On the occasion, DG (NIC) said that "The software package will be distributed free of cost to all the government libraries including schools and colleges for library automation and networking." E-Granthalaya is an XML based platform independent system which can be easily customised as per the requirements of an individual library. Ms. Veena Oak, NIC Karnataka demonstrated the features of the software.



On the same day, DG (NIC) also inaugurated a consortium of Ministry of Communications & Information Technology Libraries. The primary purpose of library Consortium is to share information resources including Books, Periodicals, e-journals, e-books. A Consortium Committee has been formed under the Chairmanship of Shri M. Moni, DDG (NIC) and members from libraries Department of Information Technology (DIT), Department of Post (DOP) and Department of Telecommunications (DOT).



P.K Upadhyay, NIC HQ

Computerised Birth & Death Registration at Bhubaneswar

A Computerised Birth & Death Registration System, developed by NIC Orissa State Unit for the Bhubaneswar Municipal Corporation was inaugurated by Sh. Biswabhusan Harichandan, Hon'ble Minister, Revenue & Law, Govt of Orissa. Sh. Samir Dey, Hon'ble Minister, Urban Development presided over the meeting and declared that the government shall soon implement the package at all urban bodies. Sh. S.K Panda, SIO, highlighted the features of the software and a team of NIC officers led by Sh. A.K Hota presented the web enabled module of the software before the audience.



A.K Hota, Orissa Correspondent

Mobile Services launched in J&K through VC

Hon'ble Prime Minister Sh. Atal Bihari Vajpayee launched BSNL's Cell ONE Mobile Services in J & K from "Panchvati" at his residence over videoconferencing on 20th August 2003. Prime Minister was accompanied by Sh. Arun Shourie, Hon'ble Minister of Communications and IT. Sh. Mufti Mohammed Sayeed, Hon'ble Chief Minister of Jammu & Kashmir was present at the launch programme in Srinagar along with his Cabinet Ministers and press. NIC facilitated the videoconferencing by connecting "Panchvati" with State Secretariat, Srinagar over NICNET.

Sambeet Mishra, NIC HQ

BRO-SOFT for Army Recruitment

Ahmedabad Branch Recruiting Office (BRO) of Indian Army conducted recruitment rallies to recruit soldiers at Surat, Himat Nagar and Ahmedabad recently. Those rallies were successfully supported by BRO-SOFT software developed by NIC Gujarat State Unit. BRO-

SOFT automates the systematic procedures related to each task of the recruitment process. Some of the tasks are checking of documents, physical measurements, physical fitness test, medical examination, written examination, preparation of merit list and enrolment and despatch of selected candidates



Manoj P.A , Gujarat Correspondent

Orissa Home Deptt moving towards Computerisation

As a step towards e-governance, Home Department, Govt. of Orissa has taken the ideal step to install P-4 systems at 16 important sections with Networked printers to promote IT culture in the department. On its inauguration, one week training programme with vigorous hands-on sessions was organized by NIC State Unit. Shri Santosh Kumar, I.A.S, Principal Secretary to Govt., Home department, addressing the participants said that all other sections are going to have computers very soon and more training programmes will be organized in active coordination with NIC Secretariat Centre. The R-F Connectivity with Fiber Optics backbone to the department will cater towards e-mail services and in handling inter-departmental transactions.

A.K Hota, Orissa Correspondent

JEE Exam Results at Arunachal

The Directorate of Higher and Technical Education, Government of Arunachal Pradesh conducts Joint Entrance Exam every year. The job of generating the Merit list and publishing the result on the Net is entrusted every year to NIC, Arunachal Pradesh State Unit. This year too, the work assigned was completed successfully to the satisfaction of the Directorate. Thousands of records were processed and various kinds of merit lists were generated. The results were published



in the official Web Site of the State and was also linked from NIC's result portal (<http://results.nic.in>). For the first time all the CICs of Arunachal Pradesh along with NIC District units were able to disseminate the results to the anxious students of JEE-2003 staying in the remote areas of the state.

Dilip Kr. Debnath, NIC Arunachal Pradesh

CIC Activities in North Sikkim

Recently, the District Collector along with all the district level officers visited the Community Information Centre (CIC) at the Hee-gyathang School Hostel in North Sikkim as a part of a drive to encourage local public to use IT tools and to announce various IT initiatives taken by the government for the benefit of the public.

Sh. L.P. Sharma, DIO North Sikkim explained the various computerization plans in the

district to the visiting officials and the gathered audience.

District Collector, North Sikkim Shri P.S.Targain handed over a CD-ROM containing softcopies of all the application forms useful for the public for availing the various citizen services to the CIC management Committee. During the meeting a statistical profile of Hee-gyathang GPU prepared by NIC, North Sikkim and Annual Performance Report of CIC Hee-gyathang, prepared by CIC Hee-gyathang were also released.

District Collector, Shri P.S.Targain congratulated DIO, NIC and the CIC staff for their active initiatives in bringing e-governance to the grass root level and said that establishment of CIC's is an extremely good and useful idea.

L.P Sharma, NIC Sikkim

Commendation for DIO Purnia

Hon'ble Prime Minister of India visited Purnia District of Bihar on 6th May 2003 . Showing great faith in NIC's team in the District , the District Magistrate , Purnia (Bihar)

Sh. Pankaj Kumar , IAS recommended the name of DIO Purnia Sh. G K Mishra as Officer-in-charge of the temporary office for the PM to be located at Army Air Port , Chunapur , Purnia. DIO was assigned the important task of providing complete technical support to delegates arriving from PMO consisting of 25 senior IAS officers . Accepting this challenge, NIC team at Purnia made elaborate advance arrangements relating to IT and Technical infrastructure as per the protocol received from PMO, New Delhi. In an appreciation letter later issued, the DM applauded the arrangements and said that the role played by the DIO was outstanding and deserves all appreciation.

N.K Prasad, Bihar Correspondent

Vidhan Sabha Info at Finger-Touch

In an e-governance endeavour, NIC-Punjab has deployed touch screen kiosk in the State Vidhan Sabha. The information kiosk was inaugurated by Hon'ble Finance Minister of Punjab Sardar Lal Singh recently. The Kiosk will help the Members of Legislative Assembly to know about the various schemes announced by the Government, Questions of the House, Meetings of the various Committees, Detailed introduction of the members of the house etc.



Sarbjot Singh, Punjab Correspondent

PUGMARS Software at Doda

NIC Unit at Doda Distt in J&K has developed a Web based Online Public

President of Guyana visits NIC

His Excellency Mr. Bharrat Jagdeo, President of Co-operative Republic of Guyana visited NIC on 24th August 2003. The Hon'ble President was received by DG, NIC and he visited the Master Earth Station of NIC HQ and was briefed on the NICNET operations by NIC officials. A Demonstration of Utility Mapping of Delhi was also done. Hon'ble President also participated in a videoconferencing session where he interacted with State Informatics Officers of Chhattisgarh, MP and Jharkhand. He appreciated the efforts put in by NIC for providing Government-Citizen interface using state of the art communication technology. His Excellency was accompanied by Sh.K.K.Jaswal, Secretary-DIT.

During his India trip, the President also visited his ancestral village Pura Thakurain Masra Nawawa, Sahuji Maharaj Nagar, Uttar Pradesh along with Sh. Digvijay Singh, Hon'ble Minister of State for External Affairs. The Hon'ble President launched two websites developed by NIC, namely 'Trace your Roots' (<http://indianroots.nic.in>) which an endeavor to assist Indian Diaspora to trace their ancestral roots in a systematic manner, in an interactive mode through a questionnaire ; and 'Website of Distt Chatrapati Sahuji Maharaj Nagar' (<http://csmnagar.nic.in>), developed in the local language by NIC Sultanpur, which provides useful information about the newly formed District.



Sambeet Mishra, NIC HQ, Anshu Rohatgi, UP Correspondent & Somesh Kumar, NIC Sultanpur





Grievances Monitoring and Redressal System (PUGMARS) as per the requirements of the District Administration. PUGMARS has a user-friendly interface for submission of Grievance, knowing the status of submitted Grievance and Frequently Asked Questions about Grievances. Utility for searching grievances has also been incorporated in the system. In the words of Sh.Mehboob Iqbal, IAS, Deputy Commissioner, Doda "Monitoring of Public Grievances with traditional system was not only time consuming but also extremely difficult. With the implementation of PUGMARS, monitoring of Grievances has become very organized and smooth for the Administration.

Sunil Kumar, J&K Correspondent

☞ | **NIC Team Honoured for Results**

The Haryana State Unit of NIC has been publishing the results of various exams of the Board of School Education, Haryana since the year 2000. This year, a web-enabled application was developed and the results of



10+2, 10th and 8th Standard and Open School Examinations were published on the Net.

Access to results was also provided through IVR System. Due to widespread Internet culture in the state and well-planned publicity, there was an over-whelming response. The website received more than 2.5 lakh hits and IVRS site received more than one Lakh hits in a very short period. The Chairman and Secretary of the Education Board honoured the NIC team involved in the project with mementos at a function organized in the office of DG(NIC).

Hari Chand, Haryana Correspondent

☞ | **Director General (NIC) Felicitated**

At a function organised recently by the Bhoovigyan Vikas Foundation, Dr. N. Vijayaditya, Director General (NIC) was honoured, among other dignitaries. DG (NIC) was presented a memento by Sh. Sompal, Member, Planning Commission.



The IT Luminaries from across the Country had gathered at the occasion where a Lifetime Achievement Award was presented to Dr. N.R. Narayana Murthy, Chairman & Chief Mentor, Infosys in recognition of his contribution towards India's global pre-eminence in the area of Information Technology. The award was presented by Sh. T.N Chaturvedi, Hon'ble Governor of Karnataka and Dr. K V Sundaram, Chairman Bhoovigyan Vikas Foundation.



DG (NIC) addressing the gathering. (Inset) : Sh. M. Moni (DDG), speaking at the function

M.Monni, NIC HQ

☞ | **Web-enabled Ship Ticket Reservation System**

A Web-enabled Ship Ticket Advance Reservation System(WEB-STARs) (<http://lakport.nic.in>) developed by NIC, Lakshadweep U.T. Unit was inaugurated by the Lakshadweep Administrator Sri. K.S. Mehra, IAS on 15th August 2003. Through this system, advance reservation for all the ships leaving Kochi can be made from Kochi,

Kavaratti and Kozhikode through the authorised ticket counters of the Lakshadweep administration. The tickets are issued on-line through Internet. The administration is planning to extend this facility to all the islands in Lakshadweep and also planning to have special counter in Ernakulam town.

Ajith Brahmanandan, NIC Lakshadweep

☞ | **Block Community Portals for NE States**

Block Community portals have been launched as part of CIC activities (<http://www.cic.nic.in>) for 487 blocks in eight States of the North Eastern Region. The portals aim to project the information about local people, values and practices (Local content) as well as provide them with an opportunity to access the information available in cyber space (Global content), as per their need. These collaborative, multilingual, multimedia & Knowledge Management enabled portals have been dynamically generated using single installation of eNRICH (<http://enrich.nic.in>) Community Software Solution Framework.

Anjali Dhingra, NIC HQ

☞ | **Papers/Articles Published by NIC Officers**

† **Title** : NewsNIC: a Web-based, full-text news clipping service from the National Informatics Centre Library in India
Authors : Ram Kumar Matoria; P.K. Upadhyay; Arvind Mishra, NIC HQ
Publication : Journal : Electronic Library and Information Systems, Vol 37 No. 3

Abstract : This case study discusses the needs, objectives and advantages of NewsNIC, a Web-based full-text news clippings project implemented by the library of the National Informatics Centre, Ministry of Communications and Information Technology, Government of India. The authors discuss the design aspects, various systems components, Web technology and database tools used as back-end solutions.

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This publication is brought to you by:

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