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Quarterly Newsletter from National Informatics Centre

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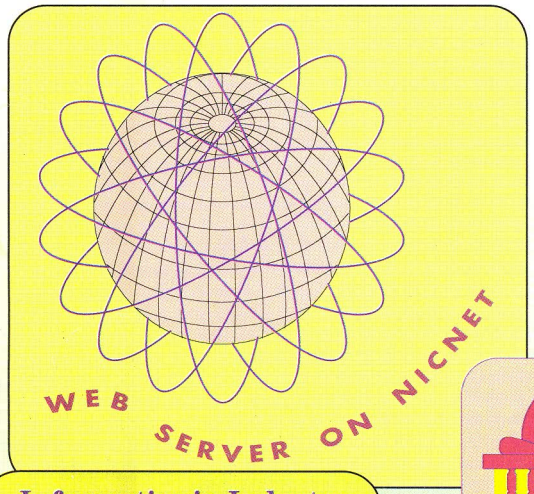
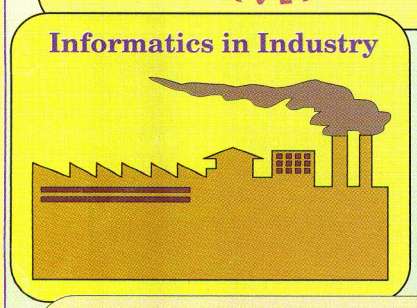
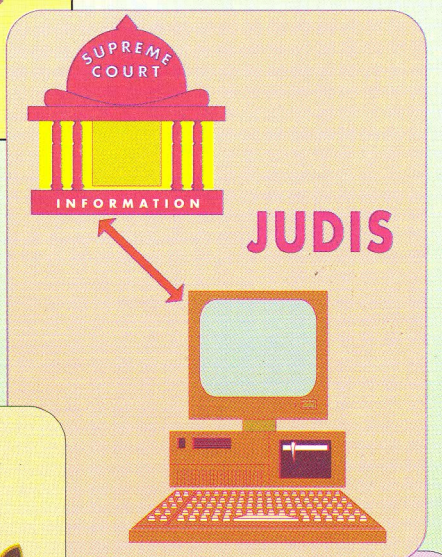
Informatics

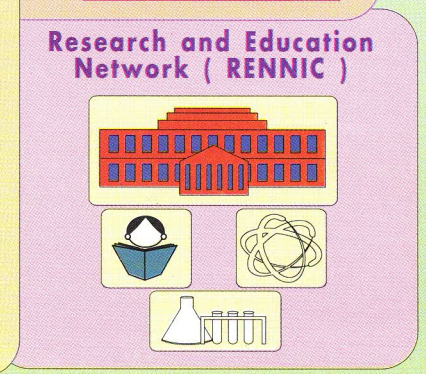
NICNET

1995 : IT Flag Flies High









THIS ISSUE BRINGS TO YOU

EDITOR'S NOTE

WHERE CHANGE IS INEVITABLE

All good things, they say, must come to an end. So has 1995, and so will my tenure as editor of ***Informatics***.

The National Informatics Centre represents the very aspirations of a Country which is trying, and trying very hard, to overthrow the shackles of convention and embrace the latest in science and technology in its bid to keep pace with a fast-moving world. NIC is a very dynamic organization. A lot has happened since the first issue of the newsletter was published three-and-a-half years back. Due to NIC's unstinted efforts, frontier technologies such as Multimedia, Computer Aided Design (CAD) and Electronic Data Interchange (EDI) are now familiar concepts in the Country; the implementation of the Ku Band-based NICNET National Info Highway and the Web Server, not only redefined computer-based satellite communication but also ushered in a host of new services such as Internet access and Data Broadcast; and, by introducing computers in practically every walk of life, NIC has directly or indirectly, upgraded the lives of millions of Indians. NIC's role in the election process, projects such as COURTNIC and JUDIS, Computerization of Population Census, and Customs Computerization have served to provide the cutting edge to development activities.

Keeping track of all that was going on was by no means an easy task. But it was exciting and exhilarating to be in the middle of it all. You feel like you are in the fast track of life. I am sure that Correspondents for ***Informatics*** will agree with me wholeheartedly.

The new Editor of ***Informatics***, **Ms Nidhi Verma**, is already on the job. She will be taking independent charge very soon. I wish her and ***Informatics*** all success.

Before I finally say adieu, I extend my heartfelt gratitude to the Readers of ***Informatics***, to its Correspondents, to the Members of the Advisory Committee, to the Co-ordinator & Convenor, to Mr Subhash Kapoor who handles all the art and design aspects of the Newsletter, to the Publications Division and to all others who were sources of support and inspiration. I would like them to know that ***Informatics*** was one of the best things that happened to me. Wishing you a very Happy New Year.

Rubaiyat Ali

PHOTOTALK

Information Presentation the Multimedia Way: The NIC Stall at INFOCOM'95 in Bombay. Several NIC multimedia products were exhibited under "Multimedia Services from NIC" as the main theme. Also on display was "HyperNIC", the hypertext package developed by NIC.

CRISP WORKSHOP

From our Pondicherry Correspondent

Pondicherry: A one-day orientation programme on Computerized Rural Information Systems Project (CRISP) was organized for the Directorate of Rural Development Agency (DRDA) officials of Pondicherry at the Pondicherry State Unit of the National Informatics Centre recently.

Inaugurating the workshop, the Project Director, DRDA, Mr. B.V. Selvaraj, IAS, urged his officers to use the facilities available under CRISP to effectively monitor various projects such as Jawahar Rojgar Yojana (JRY), Training for Rural Youth and Self Employment (TRYSEM), Development of Women and Children in Rural Areas (DWCRA), Integrated Rural Development Programme (IRDP), etc.

S/W STANDARDIZATION

From our Himachal Pradesh Correspondent

Himachal Pradesh: The NIC Himachal Pradesh Unit took up standardization of DISNIC Software in December, 1993. In August, 1994, the Commissioner-cum-Secretary (Computerization), State Government, issued directions for identification of comprehensive computerization needs of the Administration. The aim is to standardize selected packages developed by different DIOs independently.

CM ANNOUNCEMENTS PUT ON RECORD

From our Haryana Correspondent

Chandigarh: The NIC Haryana State Unit has developed a computerized system to record public announcements made by the Chief Minister at various public gatherings. The CM's Office can also monitor follow-up actions on the announcements recorded.

The System consists of three modules: State Module, District Module and Data Transmission Module. Important input parameters include place of announcement, department involved, district of announcement, announcement in brief and to whom the announcement is marked for action.

Data received at the CM Cell is entered at the NIC-CM Cell Computer Centre. Districts are intimated through NICNET. Department-wise reports are sent to the respective departments.

NIC launches NICSI

From our Local Correspondent

New Delhi : National Informatics Centre Services Incorporated (NICSI) was recently set up by the National Informatics Centre. This company is a Section 25 company under the Companies Act, 1956. The Section 25 licence was granted by the Regional Director, Kanpur on May 31, 1995. The company was incorporated on August 29, 1995 in the National Capital Region of Delhi under the Registrar of companies, Delhi.

The authorised capital of the company is Rs two crores as approved by the Union Cabinet. The company's board was recently constituted. The registered office of the company will be located at New Delhi. Business operations in the field of computer and communications commenced from December 1995.

TAX DATABASE

From our Orissa Correspondent

Bhubaneswar: A three-day state-level workshop on Creation of Dealers Database for the Commercial Tax Department of Orissa, was held at Bhubaneswar recently. The work shop was attended by Sales Tax Officials and Staff of the Commercial Tax Department.

Justifying the immediate need for creating a centralized dealers database, Mr AK Samantray, Commissioner of Commercial Tax Department, urged his officers and staff to participate wholeheartedly in the massive exercise. The workshop included a demonstration of the software developed by NIC.

CONFERENCE ON LAND RECORDS COMPUTERIZATION

From our Rajasthan Correspondent

Jaipur: A conference of District Collectors of Rajasthan, called by the Chief Secretary of the State Mr Mittal Lal Mehta, laid emphasis on the importance of Land Records Computerization efforts of NIC. Mr Ranjit Singh Kumat, Chairman, Board of Revenue, held a special session on land records computerization. The session was presided over by the Minister of Revenue Mr Ganga Ram Chaudhary.

Mr Kumat explained the importance and logistics of land records computerization and the role of NIC. He stressed on the need for standardization of land records data, and requested the Collectors of Rajasthan to actively participate in this project of great social relevance.

NIC gave a presentation on the various issues concerned with implementation of land records computerization, and also gave a demonstration of the software developed for the purpose.

Out of the 31 districts of Rajasthan, 16 have been taken up for land records computerization. The project takes on added significance because of the agriculture-based economy of the State.

Session of the Conference of District Collectors of Rajasthan in progress.

IT Flag Flies High

1995 was a year in which the Country witnessed an Information Technology boom. Internet accessibility, paging systems and cellular phones were the more visible manifestations of this phenomenon, prominently in metros and mini-metros. However, unknown to many, similar progress was being made in other areas of IT in many small towns and districts.

National Informatics Centre, the pioneer of IT in India, played a major role all through. On one hand, NIC pioneered the introduction of new technologies; while on the other, it stood by its commitment of promoting of informatics right down to the grassroot level.

The Organization's performance in 1995 is ample proof of the significant role it has played. We present gists of major achievements during 1995, culled from previous issues of ***Informatics***.

SNIPPETS

† *National Informatics Centre's efforts to computerize customs operations bore fruit when the Union Finance Minister, Dr Manmohan Singh inaugurated a new custom house building on February 4, 1995. The House has been equipped with state-of-the-art EDI service from NIC.*

† *NIC's project for computerization of all property tax collection operations in the 12 Zones of the Municipal Corporation of Delhi made impressive headway in 1995. Computerization of property tax collection has yielded rich dividends in the form of fast and error-free billing, better service and improved monitoring.*

The Coming of C-Web

The Minister of Commerce and Deputy Chairman, Planning Commission, Mr Pranab Mukherjee, inaugurated C-WEB, Centre for World Wide Web (WWW) Service through NICNET, on January 14, 1995. This opened up a new and unique way of accessing the world of information.

In collaboration with Information Dimensions Incorporation, the makers of Basis Plus, NIC successfully installed a Basis web server on its National Info Highway. Thus, NIC Users in India were not only provided access to Internet's WWW, but also had at their disposal an access mechanism which incorporated every conceivable means of tapping information.

Access to the Internet with Basis Web allowed Users the facility of a wide range of unique features:

- **Browsing**
- **Searching**
- **Display**
- **Publishing**
- **Data Management and Validation**
- **Basis Plus Accessibility**
- **Other Internet Services**

Once again, NIC emerged as the leader in introducing new technology. The Basis web server on NICNET redefined the concept of information management for the scientific and academic community as well as for commercial users. NICNET's connectivity to the Internet, made Electronic Data Interchange (EDI), Electronic Funds Transfer and access to Trade Data Banks possible for its Users.

JUDIS: A Case for IT

On March 8, 1995, Justice AM Ahmadi, Chief Justice of India, inaugurated the Judgement Information System (JUDIS), a nationwide caselaw information system for the Supreme Court of India. Developed by the National Informatics Centre, JUDIS stands out as a milestone in NIC's endeavour to provide highly organized computer support to the Judiciary.

The first of its kind in India, JUDIS can be best described as a comprehensive on-line library of caselaw that contains all reportable judgements of the Supreme Court of India from 1950 onwards. The repertoire of JUDIS consists of 25,000 judgements and is accessible from any of the 800 nodes of NICNET.

Traditionally, legal research has been carried out through use of case citators and index of the sort used in text books. Its disadvantage lies in its inherent dependency on the views of the person who develops it. A case may have many legal issues and is best left to the user to derive his own inference. To sort this out, JUDIS provides a free text-based retrieval system. By providing only the actual text part it is ensured that the user will not miss his own view point.

Informatics for Industries

Memoranda of Understanding (MoU) between the National Informatics Centre and State Governments for computerization of District Industry Centres (DICs) all over the Country, were signed on June 15, 1995. The signing of MoUs was the culmination of a workshop on Computerization of District Industry Centres, organized jointly by the Department of Small Scale & Agro Rural Industry (SSI & ARI) and NIC, at the Vigyan Bhawan, New Delhi. The workshop was inaugurated by Mr M Arunachalam, Union Minister of State for Small Scale and Agro Rural Industry.

NIC was entrusted with the responsibility of playing a key role in the computerization project by procuring and installing computer systems, upgrading existing computer facilities, providing dial-up and direct connectivity to NICNET, organizing training programmes and developing and replicating project software.

Data Broadcast System

A Data Broadcast System was installed at the NICNET Master Earth Station of NIC, opening the doors for a vast array of services such as distribution of financial information, news agency transmission, fax broadcasting, remote database updating, weather and agriculture information distribution, head office to branch office real-time transmission, and backbone relay for all-India paging, teletext and radio data broadcast networks.

Data broadcast is similar to conventional radio and television broadcast except that digital data, instead of audio or video signals, are carried by the satellite RF signal. Special digital transmission and reception techniques are employed to enhance coverage and provide error-free delivery of the transmitted information. The information transmitted in Data Broadcasting can be in the form of plain text, pictures, or even multimedia presentations.

Sustainable Agricultural Development

On May 24 and 25, 1995, the Vigyan Bhawan at New Delhi was witness to the coming together of two scientific communities dedicated to interests seemingly unrelated: agriculture and informatics. The conference on **Informatics for Sustainable Agricultural Development, 1995 (ISDA-95)** in which Agricultural Scientists and Informatics Professionals met to discuss ways and means to promote agriculture through the use of informatics, marked a milestone in the Country's endeavour to break away from the shakles of tradition and take to modern technology in search of development.

The significance of ISDA-95 lay in the action plan it chalked out for application of informatics for sustainable development in agriculture. This action plan translates into a set of recommendations classified into three broad categories:

- **IT Infrastructure Requirements :** Modernization by means of computers and maximum utilization of computer-communication networks; sharing of library resources, using CDR/ databases; encouraging Agricultural Extension Officers and Field Officers to use palm-top computers; and networking of institutes.
- **Evaluation, Monitoring and Policy:** Out of the total agriculture budget at least three per cent to be spent on informatics and network support; integrated Information system to be developed for the 16 sub-areas identified and integrated database to be developed in each state.
- **Manpower and Training:** IT-based manpower training for all agricultural extension officers; inclusion of compulsory course on Informatics in all Agriculture University courses.

Wish You a Happy and Prosperous 1996 !!

SNIPPETS

† *The Chief Minister of Assam, Mr Hiteswar Saikia, inaugurated a Land Records Computerization Centre at the office of the Deputy Commissioner, Kamrup. The Centre was developed with active support from NIC.*

† *Mr J Lalsangzuala Mizoram Home Minister, inaugurated an NIC developed MIS for issuing Inner Line Permits.*

† *A major audit application system was developed and implemented in the office of the Director General of Audit, Central Revenues, Indian Audit and Accounts Department.*

† *The Chief Minister of Maharashtra, Mr Manohar Joshi, inaugurated the General Stamp Office, Bombay in August this year. All major operations of the Office were computerized by NIC prior to the inauguration.*

† *Three new systems --- the Revenue Monitoring System, Appeal Monitoring System and Cardex Monitoring System --- were implemented in the Central Excise Collectorate, Allahabad, to cater to specific requirements of the Collectorate.*

Hotel Reservation made Easy

From our Himachal Pradesh Correspondent

Central Hotel Reservation System (CHORES) is a computerized multi-user system which was first introduced at the Central Reservation Office (CRO) in the Himachal Pradesh Tourism Development Corporation (HPTDC) Headquarters, Shimla, in February, 1993. CHORES minimizes the delays in confirming bookings irrespective of the place of location of the hotel for which the reservation is required. The System maintains a centralized database which contains information related to all the hotels of HPTDC along with availability status.

All requests for reservation from Tourist Information Offices (TIOs) and Travel Agents are (TAs) received at CRO where bookings can be made for any of the hotels, for any date and period. This can be done without referring the request to the individual hotel. On receipt of a request, the central database is searched for availability of accommodation. If available, accommodation is either booked or blocked, and the individual/TIO/TA is intimated on-line. The status is then updated accordingly. At the end of the day, a reservation chart showing bookings made, availability position and expected arrivals is sent to the hotel concerned.

CHORES has been developed in FOXBase under Xenix environment and is operational on PC-386 systems. NICNET is proposed to be utilized for communication between the TIOs, TAs, CRO and hotels.

Conducting Exams Efficiently

From our Haryana Correspondent

NIC Haryana State Unit has implemented a computerized system for the Board of School Education, for conducting examinations efficiently. The system links all district examination centres with their respective District Headquarters to enable quick decisions and prompt instructions.

Flying squads are sent to all the Districts to monitor the examinations. After every exam shift, the details are sent to state headquarters. These include, shifting of examination centres, condition of sealed papers and number of students who appeared in the exam. The communication is bi-directional with response from board headquarters which sends all instructions to staff posted at the district. The use of fax or telephone has been nearly dispensed with.

Communication through NICNET has proved to be very economical and reliable. Apart from routine transactions of messages and reports, reports on any untoward incident and use of unfair means are also reported. Instructions in response to these messages are transmitted promptly. This routine takes place twice a day. Thus the system provides facility for near on-line decisions.

Separate mail boxes have been created for each site in order to maintain security of messages and data. The staff of the Education Board has been trained to use computers and NICMAIL operations. The system is used for both regular as well as supplementary examinations.

Socio-economic Survey

From our Tamil Nadu Correspondent

The NIC Unit at Kuralagam State Government Office Complex Madras, has processed data relating to the socio-economic survey on minorities, for the Department of Evaluation and Applied Research, Government of Tamil Nadu.

The processing involved generation of more than 700 tables and statements which were used by the Department to report its findings on the socio-economic condition of religious minorities in the State .

The survey covered the Buddhist, Christian, Jain, Muslim, Parsee and Sikh communities.

Ration Cards System

From our Local Correspondent

The Delhi Unit of the National Informatics Centre has successfully developed and implemented a computer system for issuing consumer cards (ration cards) for the Food & Civil Supplies Department, Delhi. The System works to the mutual benefit of the Department and its consumers. Salient features of the System include:

- Ability to produce the exact quantity, (in figures), of commodities required by the Department for public distribution.
- Maintenance of ration card records.
- On-the-spot addition or deletion of names in the ration card.
- Information from any circle can be provided without delay.
- Speedy renewal of ration cards, when compared to the manual system.

A database for maintaining computerized records of all fair price shops and kerosene oil depots has also been developed.

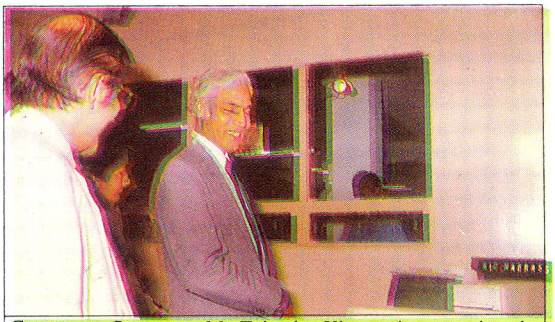
Putting Exports on the Fast Track

From our Tamil Nadu Correspondent

The NIC Cell in the Office of the Joint Director General of Foreign Trade (JDGFT), Madras, in consultation with NIC Headquarters, has come up with a software package to automate the process of issuing export licences. Named APAREM (Automated Processing of Applications Received on Electronic Media), this package marks the first major step towards introduction of Electronic Data Interchange (EDI), in the licencing offices of the Ministry of Commerce.

A Fast Track Counter with APAREM facility was formally inaugurated by the Commerce Secretary, Mr Tejendra Khanna, recently.

APAREM will go a long way in cutting short delays in granting of export licences. Exporters can now send their applications on a floppy disc to the computer centre in the Office of the JDGFT. The applications being on a pre-processed format, no further data entry is required.



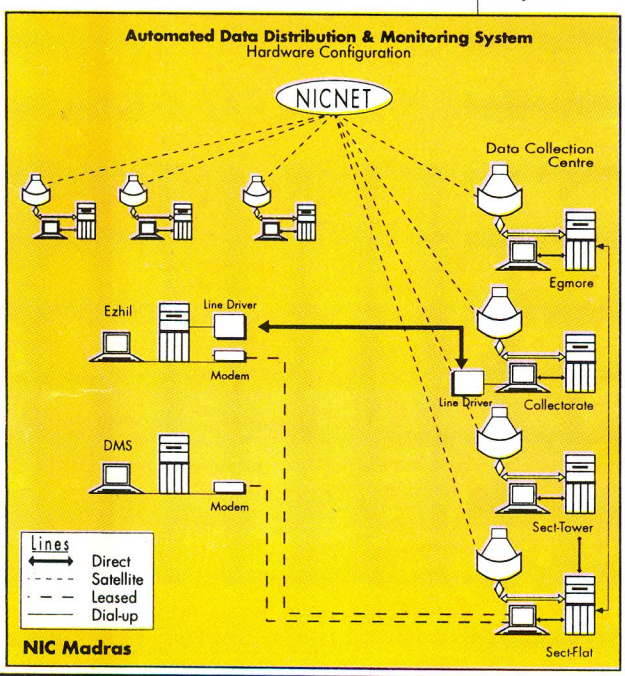
Commerce Secretary, Mr Tejendra Khanna inaugurating the Fast Track Counter with APAREM facility.

Streamlining Data Distribution and Monitoring

From our Tamil Nadu Correspondent

The NIC Tamil Nadu State Unit has come out with a solution to the 'last mile' problems in data transmission within the government hierarchy with the development of a system called Automatic Data Distribution and Monitoring System (ADDMS).

Data collection from the districts and its aggregation at the state level is essential for better planning. Data from the districts, relating to a large number of development sectors, was being transmitted to Madras on a regular basis. The NIC Tamil Nadu State Unit, Madras, is equipped with MES installations at three different locations to receive this data. However, NIC cells are located in more than six user departments in various parts of the City. Each of these user departments require compilation of data received from the districts on daily, weekly, fortnightly or monthly basis, and are connected to the three MES locations by means of leased or dial-up lines. Now, data relating to a given project may be transmitted by the districts to any of the three MES installations depending on the availability and working status of the lines. This meant that data for the same project could be transmitted separately to all the three MES installations giving rise to problems in data collation which in turn leads to time loss.



ADDMS is the ideal answer to all these problems. The system automatically routes data to the location where it is to be processed; it sends a data receipt notification to the place from where the data is transmitted; and also provides additional facility to monitor arrival of data based on specific projects.

The success of this project implies that its replication will streamline data distribution and monitoring in all other states of the Country.

Project for ORMAS

From our Orissa Correspondent

The Orissa State Unit of the National Informatics Centre has been entrusted with the responsibility of providing a wide range of Information Technology solutions for the Orissa Rural Development and Marketting Society (ORMAS). ORMAS, under the Panchayati Raj Department of the Government of Orissa, was set up in 1994 for the creation of an integrated network for marketting the surplus products of IRDP/DWCRA beneficiaries and to provide these beneficiaries with required inputs.

NIC is already working closely with the ORMAS Management for development of an Integrated Information System. The IT solutions will be based on 486 DX/ Pentium-based servers under the UnixWare operating system. The ORMAS Management is also keen on availing NICNET services for the Project.

The application areas which have been identified by the National Informatics Centre on the basis of a preliminary study of functional requirements include: Financial Accounting System, Product and Raw Material System, Sales and Stocks Monitoring System, Market Information System, Analysis of Consumer Reactions, Market Potential Identification System, System for Acquisition of Technology and Skill, and Master Craftsmen and Resource Persons Availability Information.

The Project is expected to create a new dimension in Indian rural product marketting. For the first time , the concept of rural product marketting is being considered in an integrated manner.

Land Records Computerization gains Ground

From our Tripura Correspondent

The NIC Tripura State Unit is working on an extensive project for overall computerization of land records. The immediate objective of the Project is to hand over an error-free and contemporary *khatian* to the owner, with a clear option to make necessary changes as and when such changes are called for due to sale, purchase or inheritance. In the long run, this Project will ultimately benefit many government departments concerned with forest, environment, revenue, agriculture, soil survey, conservation, etc.

Necessary hardware has already been installed in the Headquarters of the North Tripura District, the first phase pilot district of the Project. Data entry and verification staff, drawn from the Revenue Department of the State Government, have been imparted necessary training. Data entry and verification for creation of the *khatian* is in progress and sample computerized khatians have been generated.

Keeping in view the various aspects of computerization, existing *khatians* have been examined in detail, and suggestions made to upgrade the format. Necessary examination of the recommended changes, from the legal angle, has been completed, and the Government has agreed in principle to the recommendation of NIC. Care has also been taken to ensure production of *khatians* which are both durable and handy.

Revenue administration being an important area in which maximum utilization of the database created for land records is expected, rationalization of the land revenue structure is another aspect which is to be incorporated in the Project. Then comes the question of making an objective assessment of the amount of land revenue to be collected.

A number of MIS reports are also planned to be generated through the software. A package on the transaction of land, either due to sale, mortgage or similar activities, will be integrated in due course.

Bombay Suburb : Landmark in IT

" I am happy that the Bombay Suburban District Unit of the National Informatics Centre has carried its responsibilities well. Not only this, they always deal with problems in a very professional manner", says **Mr Uttam Khobragade, Collector, Bombay Suburban District.**
Mr Khobragade writes on his close association with the NIC Bombay Suburban District (NIC BSD) Unit .

Bombay Suburban District, earlier a part of Greater Bombay, was formed on October 4, 1990. With lush green hills, the District is known for its popular tourist spots such as Juhu Beach, Borivali National Park, ancient Kanheri Caves, Gorai Beach, Essel World and Fantasy Land. The Film City and numerous other studios add to the glamour of the District. Bombay Suburb is divided into three *talukas* and 87 villages.

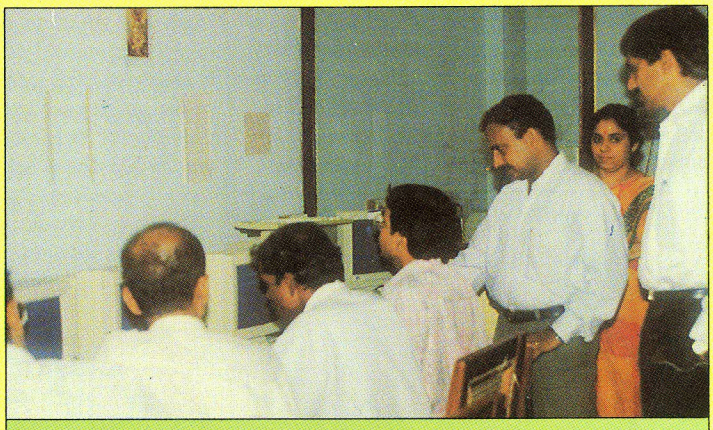
Quick take off

The NIC BSD Unit started functioning in March 1992. Its foremost tasks were to convince the District Officials of the relevance of the NIC setup and generate computer awareness. In its first year of operation, the District Office BSD Unit organized training programmes to bring the people closer to computers. Subsequently, the emphasis was shifted to computer literacy in order to acquaint the staff with different aspects of the computer --- uses, capabilities and limitations. This resulted in the development of a new culture of informatics in the District.

Meanwhile, even while site preparation for the District Computer Centre was going on, work had already begun for payroll implementation. Operators were trained, and paybills of the Collectorate and SDO's office were being processed. Eventually, the same work was extended to *Tehsil*-level offices. Payroll computerization was the first step which helped in creating a computer friendly environment. Implementation of Personal Information System, Land Acquisition Cases, GPR of Class Four Employees and Leave Sanctioning System, helped in boosting the confidence of the district staff in the informatics services of NIC.

Informatics catches on

To reinforce the computerization drive, two new projects --- the Sanjay Gandhi Niradhar Yojana and Sanjay Gandhi Swavalamban Yojana --- were taken in hand. These systems went a long way in providing timely aid to beneficiaries by processing bills, orders, money order lists and acknowledgment lists.



Mr Khobragade, Collector, supervizing computer operations.

Many projects related to information on land have been taken up to further the cause of informatics in the Suburb. These include projects for computerization of Government Land Records, Government Land on Lease, Land Grant Cases and Tribals survey data. Total Land Record Computerization of Property Card has been started under a centrally sponsored scheme to speed up retrieval of land data.

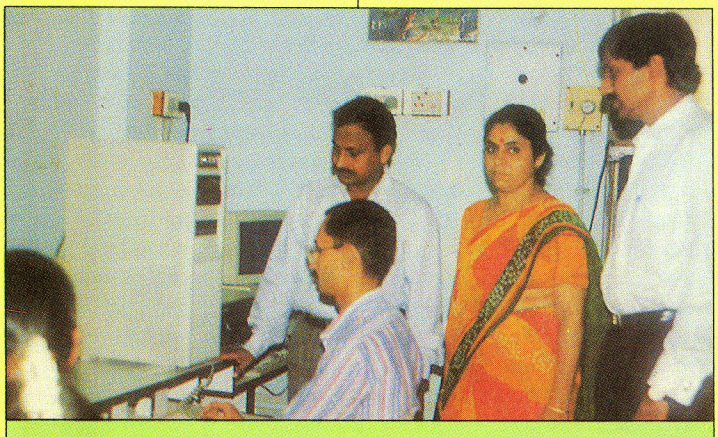
The Missing Link

NICNET services have proved indispensable for the District Administration in breaking all distance barriers. The BSD Administration is utilizing NICNET services to transmit district planning reports, revenue statements and data related to freedom fighters, to the state level. NICNET is helping the District Administration in keeping in touch with the entire Nation. With the installation of the NICNET Info Highway and web server, users of the District will soon be surfing Cyber space.

Working in tandem

There is no doubt in the fact that NIC was the motivating factor behind the awakening of computer awareness. And today things have moved in a full cycle. The District Administration is now fully aware of the potential of informatics and takes initiative in approaching NIC for various services. An example of this happy trend is the taking up of a project for computerization of Land Revenue Collection .

But the work does not end here, and there are miles to go yet. Keeping in mind the competitive nature of the City, the NIC BSD Unit has to provide services at a rate at which the Government can keep pace with changing times. With the promise of computerization reaching the taluka level soon, civil administration will soon take on new dimensions.



Demonstration of NIC services for the Collector (*Standing extreme left*)