NATIONAL JUDICIAL ACADEMY

Workshop on: The Court Room Technology (P-942)
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<u>Introduction</u>

The National Judicial Academy organized, "The Court Room Technology Workshop" from 10th-13th September, 2015 .This workshop provided a platform to the participating High Court judges to understand the virtual world in a better way. The aim of the workshop was to make the participants friendly with technologies used in courtroom, and also to make clear the main postulates of Phase-II of the E-court project which we have already entered into.

The four day workshop was divided into six sessions for each day, which included Library Session and Computer Skills Training.

Total twenty four Hon'ble judges of various High courts participated in the workshop. The chair persons in the workshop included Hon'ble Mr. Justice K. S. P. Radhakrishnan, Hon'ble Mr. Justice Altamas Kabir, Hon'ble Mr. Justice S.J.Mukhopadhyay, Hon'le Mr. Justice P.V.Reddy and Hon'ble Mr. Justice Kurian Joseph.

DAY-1: SESSION 1(9:00AM-10:00AM)
National Policy and Action Plan for Implementation of Information and Communication Technology in Indian Judiciary

Prof (Dr.)Geeta Oberoi, Director In charge of National Judicial Academy gave a warm welcome to all of the Hon'ble participating judges and Hon'ble chair person. She gave a brief introduction of all the sessions and deliberated on the objective of the workshop. She introduced the chair and the resource persons for today's session and asked the participants to introduce themselves and also to share there problems which they had to face in there respective High Courts while implementing Phase-I of the E-court project. The participating High Court judges introduced them selves and also shared there experiences, which they had while implementing the Phase-I of the E-court project, which included following problems:

- Lack of availability of funds.
- Lack of proper training and skilled staff.
- Lack of proper co-ordination between service providers.
- Use of out dated software, which are not user friendly.

- Difficulty in shifting pages.
- Security concern.
- Concern about life of storage.
- Vernacularisation.
- NIC provides internet facilities to various courts; the speed at District Courts is far less than High Court.
- Bombay High Court has E-library, but it doesn't gets updated.
- No special provision for proper training of High Court judges.

The Hon'ble Judge of Delhi High Court emphatically mentioned the achievements of there High Court. He stated that in Delhi complete paper less work has been successfully established in major three bodies, they are:

- Arbitration
- Company
- Taxation

The baton of session was handed over to Mr.A.K.Ukrani, his presentation was on "National Policy and Action Plan Of Information and Communication Technology in the Indian Judiciary". He stated that funding is not a problem, sufficient funds are available, but the judges and the court staff will have to show personal initiative and involvement for bringing about change in there working culture by use of technology. He shared one of his personal experiences with the participants; he stated once I sought permission to do a diploma course in Cyber Law from one of my senior official, he denied it. A few months later I again sought the permission for the same course but again I was denied the permission, but the then Justice overruled such denial, and thus I got the opportunity to do the course.

Mr. Ukrani's presentation basically revolved around the "Policy and Action Plan Document Phase-II of the E-Court Project" (as approved on 8th January, 2014). He in depth discussed the table of contents of this report explaining and elaborating the contents of that report. He stated that during Phase I of the E-courts Project, a very large number of Court Complexes, Computer Server Rooms and Judicial Service Centers have been established. The e-Courts National portal (ecourts.gov.in) was launched by Hon'ble Chief Justice of India on 7th August, 2013. This provides cause-list, case status information in respect of more than 2.5

crore cases (pending and decided) and has sometimes reached daily 'hits' in excess of 7 lakhs which is growing exponentially every week.

He also stated that phase-I took too many years. Till March 2015 there was Phase-I only, targeting computerization of 14249 courts. Let us now jump onto Phase-II of the E-court project. The ongoing exercise of Process Reengineering in the E-courts project as initiated by the E-committee is expected to generate a huge requirement of implementation in the area of overhauled processes being followed in the day to day functioning of the Courts.

Then he shifted his discussion to chapter-2 "Implementation Model", and stated that it is a major shift from phase-I to Phase-II. All of the sites are governed from Delhi. There was too much centralization problem in Phase-I, certainly decentralization of responsibility was an absolute necessity. Consequently, at the ground level, the implementing agency will be the High Court. This will include implementation of LAN and procurement of hardware, its maintenance and upkeep. Policy inputs including for developing software (Open Source) will be provided by the e-Committee; technical and development support for CIS will be provided by NIC.

He further explained the institutional infrastructure. He stated hat initially they were provided only 4 computers in Phase-I of the E-court project, which was of course not sufficient, but NIC did not consider it. We then demanded for 13 computers out of which we got 8 systems. The E-committee will be involved in policy planning and providing strategic direction and guidance for the effective implementation of the Project. He also stated that High Court will continue to have institutional structure as follows:
- High Court Computer Committee (HCCC)
- Central Project Coordinator (CPC)
- District Court Computer Committee (DCCC)
- Nodal Officer for Every Court Complex.

Stressing on chapter-5 "System and Application Software for Court Processes" he stated, the thrust in Phase II of the Project will be on software application and will be citizen-centric. The existing core-periphery model of Case Information Software will continue, the core being unified and for 'national' use while the periphery being as per the local requirements of each High Court. NIC Pune will continue to be the centre for software development for CIS and related applications. Each High Court will have the responsibility of developing the periphery

software and ensuring that it is compatible with the unified core. Each High Court will need to engage programmers for the development of the periphery software. However, the Project will provide programmers to each High Court for three years. Each High Court will be provided 5 programmers. All data, including Meta data will be unified and standardized in this phase. In all its activities, the E-committee will take the assistance of experts from the Government, including DeitY, CDAC etc. One of the major underlying guiding principles in the implementation of Phase II of the E-courts Project is the adoption of the best of the FOSS Applications for the Courts across the country.

He concluded his presentation by discussing chapter-6 "Scanning, Digitization and Digital Preservation of Case Records". He stated that due to space constraints and large volumes of paper, some High Courts are looking at digitizing case records. Recently, the Supreme Court has also initiated this process and assistance is being taken from CDAC for digital preservation solution. Phase II will provide for scanning/digitization of case records of High Court and District Courts. Phase II will incorporate the latest technologies in scanning, digitizing and preserving case records with the assistance of experts from various Government organizations. Long term digital preservation solutions in the form of Trusted Digital Repositories (TDRs) will be implemented for the scanned/digitized records. Use of Open Source technology will be strongly encouraged in preservation of case records. Eventually, Phase II will move towards 'less paper courts' and finally towards 'paperless courts'.

DAY-1 SESSION-2(10:30AM-11:30AM)
ICT Infrastructure Made Available to Courts in India: Computer, Video Conferencing Equipments, Software, Photocopy Machines/Fax Machines

The Resource person for the third session was Mr. Sanjeev Kumar Das. He stated we need to have belonging to E-committee. He emphasized on Infrastructural Model. He discussed the situation of Jharkhand High Court. He added that, the per Court and per Court Complex hardware infrastructure provided in Phase I of the Project has

not been sufficient in actualizing a full-fledged computerized Court or Court Complex. Basic infrastructure requirement for a court were discussed by him through the following chart:

Basis Infrastructure Requirement for a court room.

Infrastructure Item	Quantity
Slimline PC with latest optimum configuration	2
Thin / Shared / Cloud Computing Client	6
Printers (1 MFD Printer with ethernet port + 1 Duplex Printer with ethernet Port)	2
LAN Points	12
Extra Monitor + 2 port VGA Splitter/Extension/Distribution Unit	1
UPS 2 KVA with 2 hour backup	1
Display Monitor for Current Case Display Board outside Court Room with basic shared computing or thin client	1

Mr. Sanjeev then discussed the basic, Rationale for 2 + 6 (8) systems in per Court-Room hardware using following chat:

		Rationale for 2 + 6 Systems in Court Room Hardware		
Sr. No.	Section	Personnel/Process	Computer Systems Ideally Required	Conservative Requirement
1.	Court-Room	Bench Clerk / Reader / Shirestedar / Court Master etc. on dais	1	2
		Steno on dais	1	
		Ahlmad / Case Record Keeper / Misc. Clerk in the Court Room	1	
		Judicial Officer	Judicial Officer's Laptop	

No.	Location	Service	Computer Systems	Total
2.	Judge's Chamber / Steno Room	Judicial Officer	Judicial Officer's Laptop	
		Steno Room	1	1
3.	JSC cum CFC	Filing/Scrutiny/Registration/Allocation	1	2
		Enquiry / Case Status & all services mentioned in the Litigant's Charter to be delivered from JSC-cum-CFC	1	
		Certified-Uncertified Copies Issuance	1	
4.	Registry Sections	Process Issuance	1	3
		Court Administration /Email for Court Officials/ eOffice (eFile/eHR/eLeave etc.) & other Office Automation Applications	1	
		Nazarat / Accounts	1	
		Record Room / Scanned / Digitized Records Access (DMS)	1	
5.	Court Librarian	Library	1	
		Library Assistant	1	
	Total....	Computer Systems	13	8
		Judicial Officer's Laptop	1	

He stated that, State Judicial Academies were not given anything in Phase-I of the E-courts project, but they'll surely be provided requisites in Phase-II. He further added that, when computers came for the first time in district courts, they behaved as if it is coming from alien place. With every training program, this information belongs to us and we have started using it at our place. Implementation at our place is such that the district committee sees that things fall in place and it not just kept unused. Baton of the session was handed over to Mr. N. G. Sherpa.

Mr. N.G. Sherpa took the later part of the session, his presentation revolved around the E-committee Supreme Court of India. He asserted that there are serious issues of implementation, especially in north eastern part on India and emphasized that use of paper must be reduced. He showed his concern about the pendency of cases in various courts of India. He asserted, almost eighteen million cases are in Supreme Court, nine percent from ten years and eighteen percent from five years.

He discussed the Information and Communication Technology (ICT) tools and there relevancy at court rooms. Emphasizing upon that he stated that they are to bring about revolution. Web enables better connectivity. He further discussed ICT enablement of Indian Judiciary. Elaborating it he also stated that we have faced various problems while implementing the Phase-I of the E-courts project. Problem in conducting video conference was one of the major problems. ICT training of Judicial Officers and court staff is very necessary. There is lack of Technical Manpower and supporting staff, which must be urgently resolved.

Mr. Sherpa moved further to policy and action plan for Phase-II of the E-court project. He discussed that, in Phase-I 1+3 computers were provided, whereas in Phase-II 2+6 computers will be provided. Desktops and laptops will also be provided. Hardware to District Legal Services will be provided. The minimum Kiosk to be supplied will be one for a Court Complex. Court library will be computerized and will have an Integrated Legal Management System (ILMS). Video conference facility at all court rooms and also in prison will be provided and properly utilized. Solar energy will be used for power backup. Service delivery will be through cloud computing, thus improving efficiency and scalability. Mobile based service deliver including information regarding matters could be given or obtained through mobile application. Scanning and digitization of case records will be taken up. Facility of digital sign will be provided to judicial officers and court staff.

Hon'ble Justice K.S.P.Radhakrishnan added his valuable suggestion to this session that, capacity building through State Judicial Academy should be practiced. Computer Labs should be developed at every State Judicial Academy, for providing proper training. Facilities of Video Conference shall also be provided at State Judicial Academies. This session was ended by the kind suggestion of the Hon'ble participating judges, which are as follows.

- ➢ As we are not technocrats, we need proper skills, training and technical help.
- ➢ There must be efficient Technical Committee.
- ➢ There must be some standardization, as to what equipments are better and efficient to use.
- ➢ Although there are sufficient equipments they must be utilized properly.

DAY-1 SESSION: 3 (12:00P M-01:00PM)
Implementation of Judicial Knowledge Management System for Judiciary in India

The third session was again taken up by Mr.A.K.Ukrani, in which he carried forward the discussions done by him in his previous session on the topic "Implementation of Judicial Knowledge Management System for Judiciary in India". He started his presentation by discussing chapter 7 -"Video Conference for Courts and Jails" of "Policy and Action Plan Document Phase-II of E-court Project". He stated separate room has been allotted for that purpose. It has been found that the main concern that may come up for software based VC set-up is the connectivity bandwidth. It is therefore imperative that if, based on the success of the ongoing pilot, software based solution is chosen to be deployed in Phase-II; the connectivity to be provisioned for VC set-up has to be at least 1 MBPS which is reliable and stable connectivity over and above the regular connectivity being provisioned to the Court complex. He further discussed its advantages as follows:

- Big screen
- Better pixels
- Multi picture system
- Better screen resolution

He proposed and approved the use of software based VC, stating that SKYPE and HANGOUT have been used since past three to four years. Further he added, NIC has launched an application called

"VIDYO" for the courts to conduct trials, just like as in Skype the user has a six digit code to use it. He suggested the use of following equipments also:

- Pen lite zoom cameras
- Mike speakers unit

Mr. Ukrani deliberated that live and pre-recorded (on-demand) videos can be hosted and webcast and live presentations can also be arranged through NIC's Government Video Portal that is webcast.gov.in. Joining this portal will be of vital importance and usage for the SJAs to host the content, pre-recorded or live, on the training module of the Judicial Officers and Court Officials, whether on ICT or other subjects of training. Any cost involved in these initiatives will be provisioned through the Project during the Project period.

He emphasized on Capacity Building measures. Capacity building through training judicial officers in the use of computers and court staff in the Case Information Software has been extremely successful. The Training of Trainers (ToT) model was adopted. This will continue in Phase II. This should be followed at National Judicial Academy as well as State Judicial Academy. For sustainability of the efforts of ICT Training for Judicial Officers and Court Officials, there is an urgent need of providing a full fledged Computer Lab to the State Judicial Academies which most of them do not have. He also emphasized to have an Open Source Wed Casting System.

He emphatically relied on the point to have efficient Human Resources. He further explained that, experience in the working of Phase I has shown that the office of the E-committee needs considerable strengthening. In addition to the existing sanctioned staff, the office will require support staff for Project monitoring, research in new technologies and for fine-tuning software requirements and solutions. Thus in Phase-II budget also has been provided for Technical manpower from 14th Finance Committee through state. He also stated that ten persons have been allotted for High court, five programs and five from technical background.

He then emphasized over the Service Delivery. Mobile phone applications, SMS and E-mail will be extensively used for dissemination of information. Kiosks with basic printing facility will be provided in every court complex. Also the facilities like E-payment getaways, online payment, E-filing will be provided.

He then illustrated Judicial Knowledge Management System.

> KOHA: The Supreme Court Judges Library has successfully implemented an integrated free Open Source application called KOHA.
> In house E-journal: Judgments delivered by a High Court or the Supreme Court will be made available through an in-house E-journal containing the judgments and its head notes.
> ILMS: Integrated Library Management Database- This software caters all functions of a library that is acquisition, circulation, catalogue generation etc. and is called an ILMS.
> NJDG (National Judicial Data Grid): The large amount of data of being generated and updated continuously in the Justice Delivery System requires to be stored, which is stored in NJDG.

DAY-1 SESSION: 4 (02:00PM-03-00PM)
Building Technology Knowledge Management System for Judiciary in India

The Resource person for this session was Mr. Venikarunakaran. He stated that first telephonic conversation took place hundred years ago, that's when it came to beginning. Discussing on how ICT can be used efficiently in judicial system he stated technologies within the court offices can be divided into three groups:

• Basic Technology such as hardware, software and both internal and external email facilities for both judges and administrative personals.
• Second group consists of application used to support administration components of the court orgnistion and its stake holders which includes office automation, user based application, case management system, MIS.
• Finally the third group consists of technology which can be used to support the activities of judges, lawyers, and litigants.

The ICT implementation strategy is such as to develop E-confidence of Leaders, Staff, Litigants and Lawyers in the system. He thoroughly analyzed the characteristics of the mixed generation court work force; he discussed the following categories and explained there work forces respectively.

- Baby Boomers (born before 1964) with court experience and wisdom can be very useful, however they need to adapt up to speed on new electronic methods.
- Generation X (born 1965-79) values mobility, accountability and responsibility in the workplace are important to them. They are first generation to grow with computers and are comfortable using smart phones, texting etc and can adapt well to changes, accept alternatives and moreover they embrace the digital revolution.
- Millennial Generation (born 1980-2000) values constant feedback, prefer to work in teams. They are hyper connected to electronic devices.
- Generation 2020(born after 2000) they are a workforce only a few years away from the joining the court staff. Having owed digital wireless devices all there lives, familiar with the most modern technologies.

He appreciated ICT by pointing out its benefits that, it increases transparency. It increases number of services to people. It is speedy and accurate delivery of service. It leads to integration with successful E-court projects like E-sign, digital lockers, online payment, E-filing etc. It reduces reluctant work, encourages sharing of essential information and improves overall efficiency. It ensures that older workers are up to speed on new electronic methods. ICT Implementation model is based on Vision, Review and Implementation. Vision is to visualize the future potential of the use and impact of ICT. Review is to know where you are now. Implementation is to plan a way forward to reach our vision both long and short. He deliberated that in Kerala there is problem of lack of support of state government.

The later part of the session was taken by Mr. Nagesh Nhavkar (Bombay High Court). He deliberated for the success of the E-courts four Pillars are necessary, they are:
- Process
- People
- Technology

- Resources
  (People must be equipped with process, technology and resources.)

Discussing the High Courts strategy he emphasized on to tap in-house pool of talent. To practice Training of trainers (ToT) model. Three National CIS master training have been carried out. We have Technical cadre staff at High Court. Continuous learning programs are being organized. Following features were discussed by him while discussing key goals of change plan.

- Awareness-of need to change
- Desire to appreciate and support
- Knowledge of how to change
- Ability to implement day to day
- Reinforcement to keep the change in place

He further discussed the change achieved so far by the Bombay High Court. Maharashtra Judicial Network has been enhanced. Case status order and judgment can be obtained online. Advocate specific order and judgment can be obtained. SMS alerts are given. Mobile based application has been developed. He deliberated being a techno savvy means technology can be more productive and efficient. It develops knowledge, spirit and attitude of can individual. Evaluating the potential of ICT in judicial system, he stated it had helped us in formation of electronic court rooms. It has lead to trusted repository of electronic records. It has helped in big data analysis. Proceedings through video conference can be easily conducted. Audio video recording of case proceedings is possible.

Following electronic skills requirements of court staff were pointed out by Mr. Nagesh Nhavarkar:

- Functional skills to operate all kinds of gadgets
- Ensure connectivity
- Manage relationship with service provider
- Ensure delivery of service cause

He explained road map for digital skills development. He emphasized on to define a vision and key focus area. Existing skill levels must be assessed. Future skills requirement must be identify. Vision must be +to provide hassle free access to justice and enhance the

expression of timely delivery to justice at affordable cost through better adaptation.

DAY-1 (03:00PM-04:00PM)
COMPUTER SKILLS TRAINING

DAY-1(04:00PM-05:00PM)
LIBRARY READING

DAY-2 SESSION: 5 (09:00AM-10:00AM)
E-Judiciary project: Phase-I Achievements and Phase-II Targets

Professor (Dr.) Geeta Oberoi started the session by welcoming chair persons Former Chief Justice of India Hon'ble Mr. Justice Altmas Kabir and Hon'ble Mr. Justice S.J.mukhopadhyaya. The session begun with the opening speech of Hon'ble Mr. Justice Altmas Kabir, he started by emphasizing the importance of internet in our day to day life. He stated that due to internet we get the facility of getting information instantly. It is a speedy medium through which we can share knowledge with others. He emphasized that internet has improved our efficiency and has led to up gradation of judicial capacity. We have to see the object of the E-court project, and how to implement it. The discussion was carried forward by Hon'ble Mr. Justice Mukhupadhyaya, he discussed the usual problems faced till now, and they were:

> ➢ Whether the notice was issued or not
> ➢ Whether notice was served or not

➢ Whether decision was given or no

He further emphasized that we have to concentrate on how advancement can be done by E-court system? We have to make it easily accessible to get information. The session was then handed over to the resource persons for there respective presentations.

The resource persons for this session were Mr.Atul Kaushik and Mr.C.M.Joshi. Mr.Atul Kaushik started his presentation by giving brief introduction to the E-court project; he stated that E-court Integrated Mission Mode Project is one of national E-Governance project being implemented in the courts of the country.

Phase I: Project approved in Feb 2007, revised in September 2010 with a budget of Rs.935 crore for computerization of 14,249 Courts

Phase II: Enhanced ICT enablement of Courts and universal computerization:
- Approved with a project timeline of four years at the estimated cost of Rs.1670 crore.
- Based on the Policy and Action Plan Document of the E-committee.

Adding to this point he stated that presently we lack technical man power, and in the E-court project we will train the technical staff, in each court complex.

He then moved on to discuss the Phase-I: Project status through the following chart, and made following analysis:
- 95% of the activities completed
- The national E-Courts portal (http://www.ecourt.goy.in) is operational
- Most District Court websites are operational
- Case status information in respect of over 4.85 crore pending, decided cases and more than 1.4 crore orders/judgments pertaining to district and subordinate Courts are available online

Project Module	Status as on August, 2015	
	No. of Completed Courts	Percentage
Sites Ready	14,249	100
LAN Installed	13,606	95.5
HW Installed	13,436	94.3
Software Deployed	13,672	95.6

He then discussed the Objectives of the Phase-II of the E-court project. He stated that Phase-II has added more dimensions to Phase-I project. Broad objectives of phase-II project are:

- Computerization of about 5751 new courts, computer training in State Judicial Academies.
- Judicial Service Centers: J.S.C +Central Filing Center.
- Centralised case Filing Centres and information Kiosks in Court Complexes.
- Enhanced availability of E-services to lawyers and litigants through E-filing, E-payment, process service through hand held devices and mobile applications.

This will indeed improve court management process.

He also elaborated the Mechanism for Phase-II Implementation in following points:
- Project Timelines - Four years (Sanction issued on 4.8.15)
- Implementing Agencies – High Courts
- Institutional Structure:
  - High Court Computer Committee
  - Central Project Coordinator at each High Court
  - District Court Computer Committee
  - Nodal Officer at every court complex

He deliberated that through this the High Court will get more Responsible and more Freedom to enjoy. He further emphasised that, let the users also participate in the work as much as the justice providers do. We all should focus more on process Re-Engineering.

Mr.Atul Kaushik then discussed the Implementation Mechanism of the Phase--II project that E-committee will prepare the basic design and specifications of hardware to be procured in consultation with the Department of Justice and NIC. The procurement and implementation will be undertaken by High Courts. Funds shall be transferred by the Department of Justice to the E-committee of the Supreme Court.

He concluded his presentation by addressing the project challenges, discussed as under:

➢ Suboptimal provision of hardware of Phase I
➢ Ceiling on Coverage
➢ Bridging Digital Gap within the Court System
➢ Increased Technical Manpower Requirement
➢ Connectivity Bottlenecks
➢ Time & Security Constraints in Criminal Cases
➢ Process Automation
➢ Non availability of certified copies - Judicial reforms

The later part of the session was taken by Mr.C.M.Joshi whose major focus was on E-court: Benefits at Grassroots Level. He started his presentation by asking the question that what will come to District Judiciary through this project. He then elaborated what Phase-I project aimed at:

• Enabling the officers for IT
• Enabling the staff of the Courts
• Creation of the basic infrastructure at Courts
• Creation of the networks
• Preparing the application software
• Making the reports and case data for the High Courts
• Providing the litigants the case information

After that he discussed the requisites for enabling the officers for IT. Laptops/printers are provided to the Officers. Officers are being prepared to use the laptops. All the officers have email id on "aij.gov.in" domain with SMS facility. Training on Ubuntu OS for day to day use is being given. Broad Band internet for residences of officers is given. Master training has increased the knowledge base. It has created a work environment of IT enabled office.

Coming on to requisites for enabling the Court Staff he stated. Basic ICT infrastructure in Courts with Servers, TC, Slim PC, Printers, browser for net surfing, word processing, spread sheet etc has been provided. This has resulted in the use of technology in Courts. CIS training for staff by giving extensive training for staff and preparing Master Trainers among them is being extensively used. It has lead to reduction of duplication of work. It has depleted the work pressure. But encouragement to use the system generated reports is yet to begin.

Following points were discussed by him on Creation of Basic Infrastructure at Courts:
- 3+1+1 system per Court with 2 printers
- System with basic requirements of the Courts has resulted in the better communication and managements.

He also added a remark to it that, the users are still waiting for better systems and devices and Judicial Service Center is yet to take its shape.

He further discussed the Creation of Networks by providing

- LAN for Courts.
- Leased line/VPNoBB connection for Courts
- Using State Wide Area Networks (SWANs)
- SMS facility, internet, access to legal Database.

This has resulted in connecting the courts laterally and vertically. Use of email communication is on increase, delivery of information has begun in a better manner. All of it has resulted into basic version of National Judicial Data Grid (NJDG).

Mr. Joshi also emphasized on preparing the Application Software. He then discussed about the Case Information System (CIS), and further illustrated its features as follows:

- The CIS include almost all the requirements of the Court.

- Work-flow, recording of the various stages of the lifecycle of the case.
- Helps the –Management of the Court, dockets, Workload related info, cause lists and many more.
- Various reports, disposals, identifying bottle necks, CIS encompasses 90% of requirements.
- Core and periphery- Central requirements and State needs- latter to begin.

He further added that KIOSKS has taken away half of the trouble of advocates as well as litigants, as it provided various information like case status, case time and various other details of the case can be obtained through it.

He appreciated that how this has helped the litigants to get the information. All the information of the case is available to the public instantly. No need to visit the Court anymore to know the dates. Information regarding the stage of a case and what transpired in court are made easily available. Judgments and order are also made available. This reduces the load on copy preparation. Visits of the litigant to Courts have been minimized. SMS facility is available for lawyers.

He deliberated what does E-court project means to District Judiciary? Explaining that he stated following points:

- Decentralization-Building ownership, enhancing capacities, creating local support systems-local manpower use, local support, self-sufficient and self reliant.
- Increased infrastructure for Courts, better connectivity- 2+6 systems, printers (MFD), cloud computing.
- Better workflow based, citizen centric, Informative Case Information System
- Interoperability with other entities- Horizontal & Vertical, cross organization.
- Core and periphery- promotes local customizations and meets local requirements.
- Document Management Systems.
- Video Conferencing with Jails, others-reduce costs, production is ensured.
- E-filing and E-payments.
- Scanning and Digitization of records.
- Hand-held devices for process Servers – like Flipkart man!
- Less registers, less paperwork, less file movement.
- Litigants visits to courts are minimized-No crowded Courts.

- Court account system is made easy
- Transfer of case across establishments will be easy.

Then he explained what does the E-court project means to High Court by following points:

- Reports of the pendency and disposal readily available – due to cloud based approach
- Management of the Courts easy- with all reports and daily updates
- Knowledge Management System at High Court level- Library on line
- Human Resources – Technical staff requirements at District Courts need to be augmented
- Developing support systems for the ICT infrastructure
- Defining the analysis requirements-Data analytics.

Mr.C.M.Joshi concluded his presentation by discussing the challenges of Phase-II of the E-court project.
This session was followed by queries by the Hon'ble participating judges, the common query amongst them were:
Q.) How can we be benefited by Data Mining?
Q.) Is it safe to store our data with Cloud Computing system? Can it actually hold the bulk of data?

The above mentioned queries were answered in following that Data Mining can be helpful in determining to which stage a case has progressed, why a particular thing is happening in a case and many more information about the case can be obtained. Mr. C.M.Joshi answered the later part of the queries by stating the cloud information is absolutely secured. "Meghraj" is Government Cloud to accelerate the E-services in country. Data of Indian Judiciary is stored in National Data Center Delhi. Disaster Recovery Center is in Hyderabad. It has no connection outside NIC. We are not using any commercial agency. He further added that Data of Karnataka High Court is Stored at three places, with its Disaster Recovery Center at Pune.

SESSION: 6 (10:30AM-11:30AM)
National Judicial Data Grid: Benefits of Common data management and access system.

The resource person for this session was Mr. Pramod Goyal. He started his presentation by stating that National Judicial Data Grid (NJDG) is connecting all the courts, and all should work in synchronization. There are three basic components of NJDG:

- ❖ Humanware.
- ❖ Hardware.
- ❖ Software.

He showed his concern that NJDG was being abused thus we made specified specifications to avoid its abuse, and there has to be synchronization between all, for its efficient use.

He discussed Human Ware, which consists of Human Resources. It needed technical resources. People with technical knowledge were much needed to monitor the technical work. Thus Central Project Coordinators (CPC) was created. Training of Judicial people was also urgently needed, as there was a "Mental block" with judicial officers regarding ICT. Changing there mindset is not itself sufficient, the rules will also have to be changed.

He deliberated the benefits of NJDG in following points:

- Helps is monitoring of opponents.
- Management of number of judges required.
- To improve court, case management and performance of judges.
- Nature of case in a particular case.
- Number of pending cases.
- It leads to accountability.
- It will bring transparency.
- Reduce footfall in court, as people don't have to go court to get the details of there cases.
- Less expensive form of justice.
- Increases public participation.

He further added that E-committee of Supreme Court has provided to every judge of High Court access to data grid.

Mr. Atul Kaushi took the initiative to explain how to use online judicial portal-"ecourt.gov.in". He also mentioned that in Phase-II of the project we have provided the facility of entering data in two languages. Using this feature we can easily compare data of two different states. Commenting upon Process Re-Engineering he exclaimed that why can't we have a common code of Process Re-Engineering? We prepared a core version of it. He further emphasized on having a common nomenclature for all of the courts.

Hon'ble Mr.Justice Altamas took the honour of concluding the session with his kind words that, first all of the particulars are given to the Judges to understand it, then it has to be given to the lawyers, and then to the litigants. It is a gradual process.

DAY-2 SESSION-7 (02:00PM-03:00PM)
Can Evidence Theory and Fuzzy Logic bring complex Problems in Legal System into Focus?

The resource person for this session was Mr. Ashok Deshpande. Before he could start with his presentation Hon'ble Mr. Justice Altmas Kabir took the initiative to explain the concept of Fuzzy Logic. Later Mr.Ashok Deshpandey gathered everyone's attention and started with his presentation. He started his presentation by explaining the concept of "Fuzzy and Evidence Theory" and explained its various approaches. He also explained its extraneous factors in Judiciary and its objective.

He explained fuzzy logic by various ways, adding to it he stated that it is not us who makes decisions, our experience makes decisions. He further deliberated that fuzzy logic can be explained in a better way by following representation.

Chance v. Ambiguity

He expressed fuzz is imprecise. Fuzzy logic is a form of many-valued logic in which the truth values of variables may be any real

number between 0 and 1. Fuzzy logic has been extended to handle the concept of partial truth, where the truth value may range between completely true and completely false. He explained it with help of examples: white as well black, old as well as middle age. Various activities were carried out by Mr. Ashok Deshpandey.

Mr. Deshpandey explained Dampster /Shaffer Theory of Evidence. He emphatically stated that we consider you (decision making man, here the Hon'ble Judges) are supreme and not the mathematics. It only supports you in decision making. He also gave a hypothetical situation to the Hon'ble judges and also asked them to solve it using fuzzy logic.

DAY-2 SESSION-8 (02:00PM-03:00PM)

This session was started with questionnaire and suggestions by the Hon'ble participating judge.

Q.) Lots of changes have been made on Phase-II of the E-court project regarding manner? Are there any rights available to litigants? If litigants are aggrieved then is there any remedy for there redressal?

> This question was answered by one of the resource person, that this information has not been disseminated to public at large; although there are ADR-Redressals in the courts they can get remedy there.

Q.) After filing the case how will the parties to the case come to know about the status of the case?

> The answer to the question was given by one of the resource person that the information can be obtained by the KIOSKS, or if there mobile number or email ID is given, then through that also information can be given.

It was followed by suggestions by various participants.

> They suggested having a common nomenclature throughout the courts of the land.

- ➢ Process Re-engineering.
- ➢ Exchange the ideas amongst each others so as to know what is going on in other High Courts.
- ➢ We are learning the process, we will transfer it to the lawyers then it has to be further given to the litigants.

Hon'Ble Justice S.J.Mukhupadhyaya emphasized that with the coordination of the State Judicial Academies you shall organize workshops for the lawyers too, and get the ideas to advance the process. Further Regional conferences shall also be conducted. NJA has been and shall further organize regional conferences with the registry People of High Courts consisting of the following:

- • Chairman of e-committee.
- • Representatives from High Courts who have already taken up this work.
- • Members of Registry.
- • Three to Four members of association of lawyers.

The session was further carried by Hon'ble Justice Sanjeev Sachdeva (Delhi High Court). He demonstrated the achievements and efficiency of Delhi High Court through his presentation. He stated that on 15th December 2009 the E-court setup started in Delhi Courts. Now in three of there wings i.e.:

- ➢ Arbitration
- ➢ Taxation
- ➢ Company

They have attained complete paperless work. Now certified copies are being issued from the digital records.

He further expressed that from 1st September 2015 onwards weeding out has started. Space equivalent to 35,000 square feet has been created due to weeding process. 1150 Desktops have been installed in registry which has become paperless. Scanning and updating of cases has started. KISOSKs have been rightly placed in the court premises. If we access the website of High Court we can see almost every detail of the case including cause list and case history. Display boards have been installed in front of every court room displaying the matters that the court will take up in the day.

He then shared the internal support that they had in there High Court as follows:

- Hardware: 21" wide touch screen monitor with digital pen.
- Software available of digital screen.
- Adobe acrobat.
- M. S .Office.
- Supreme Court cases.
- Delhi law Times.
- Law pack Supreme Court and High Court.
- Such other software as required.
- Bare acts.

He deliberated that we have Digital Case files in PDF format, which has cause list, item number, hyperlinks with PDF files, option to more case notes. Easy access to multi media file example audio and video clip. It has also made voluminous handling of records easy. Notes are available all the time. It has thus lead to easy availability of trial court record. We have attained dust free environment and court filed. We can online check draft daily orders. Orders are digitally signed.

Coming on to External support he stated that, we have already started the practice of E-court fees, online facility to purchase E-court fees has been started from 22nd July 2013. We have also started with electronic filing of cases, in Delhi. In Taxation, Arbitration and Company electronic filing of case is mandatory. In these three wings we have attained complete paperless work. If there is any defect in the file then it is checked for defect.

Illustrating about there Data Backup he showed us the following data:

- One 10TB SAN(Storage Area Network)
- Two 32TB NAS(Network Attached Storage)
- Five 8TB capacity NAS
- 20TB storage at National Data Center for disaster management

He further stated that thorough this process we have brought down the distance between litigants and advocates. It is more cost effective. E-

cause list is forwarded to 6266 advocates via-email. Push SMS based information system has been developed. It delivers information about case status. Digital Display Boards are placed in front of every court room, it displays particulars of other court rooms too, and different kinds of matters are displayed in different colures. Making it convenient for the advocated, so that they will not have to rush from one court to the other. Inside every court room also there are digital display boards.

He deliberated that services like E-post office, E-inspection has been started, and case history can also be referred. Besides this, electronic library has been established for advocates. He further added that we are now planning to make virtual court rooms and to start the process of E-filing from District Courts also.

Day-2 (03:00PM-04:00PM)
LIBRARY SESSION

DAY-2 (04:00PM-05:00PM)
CPMPUTER SKILLS TRAINING

DAY-3: SESSION 9 (9:00AM-10:00AM)
Digitalization of court records: Story from Different jurisdictions.

The session started with the message given by Justice Madan.B.Lokur, which was recited by Mr. Ramesh Babu (Observer), which stated that anyone can access National Judicial Data Grid (NJDG).It can give any kind of information about a case. He further emphasized on Process Re-engineering and renewal of reports. He urged all of the High Courts to do that and also asked them to be prepared for RTI regarding NJDG. He further suggested the High Courts to start there own "Awareness programs" for the general public, as presently we are in Phase-II and we don't have involvement of litigants. But in up coming years we are surely going to involve litigants too.

Hon'ble Justice P.V.Reddy had started the session with his opening remarks. He explained how IT has been useful to us. He sated that Phase-I of the E-court Project have been successful and we are now moving towards Phase-II. Digitalization of records will be helpful for digitalization and preservation of record. In District Court and Subordinate Courts there has been lack of proper planning, which has to be properly managed. He further discussed that ICT problems are faced by Indian Judiciary. Hon'ble Justice ended his speech with great remarks that we are making speedy progress, but much more is yet to be done. We can't confine to only one dimension. There has to be holistic and pragmatic approach.

The session was further proceeded by Mr. A. K. Sinha whose topic of discussion was "Digitalization of Court Records: Story from Different Jurisdiction". He started his presentation with a very basic question-"What is Digitalization" and explained it further that -Digitalization is the process of converting information into digital format. Then he discussed why digitalization is necessary, and suggested following points:
- Modern Technology offers ways to make documents more accessible to the public and to eliminate paper copies.
- Valuable Historic documents are not lost
- Digitalization gives opportunity to improve accessibility, preserve information in the event of disaster.
- Reduces demand for physical space for storage.

He discussed the queries which perplex a person regarding digitalization, which were:

- Whether the digitalized data is correct?
- The data once digitalized, where is it to be kept?

After this he discussed the meeting of CPC held on 5th-6th September, 2015.The Supreme Court of India, explained the scanning and retrieval procedure followed by the Hon'ble Supreme court of India. The process has following three stages.

- Scanning and/or converting any document format to Portable Document Format (PDF).
- Verification.
  - After scanning or converting into PDF, the same is being verified by the concerned person for accuracy.
  - If any discrepancy is found, the document will be corrected and once again scanned in PDF format.
- Storing digital content to digital repository.
  - After scanning and verification, the digital document is stored into digital repository called as "D space".

He also suggested that instead of getting the documents manually signed, it must be in digital form i.e. Digital Signatures. Delhi, Punjab and Haryana High Courts have already started using it. The Hon'ble Supreme court stores its data archive in the server of "C-DAC. Mr. Sinha concluded his presentation by stating that, NIC service provider is taking care of data online, even in case of disaster the data can be recovered easily.

Later part of presentation was taken up by Mr. Talwant Singh whose topic of discussion was "Digital Preservation of Disposed of Case Records"

He started his presentation by asking a question that why digitalization? He explained it further that there are 24 High Courts and 600 District Courts in India and each court is maintaining thousands of cases per year. So there is huge amount of scattered data that need to be standardized and preserved. So that our next generation, judges and lawyers can refer the old case records. He showed the poor condition on over loaded courtrooms of Indian courts.

Then he showed his concern as to why the disposed cases are critical and need to be preserved. Explaining that he stated that disposed cases can be considered as a primary proof of a concluded trial. These kinds of case records can be useful for future references while decision making. They might be needed to prove a repeated offence. Basically

these kinds of records are the assets which need to be preserved as accurate as possible.

He further added CDAC was given the work to look after the preservation of data. They were asked to carry out studies and suggest any five bodies which urgently needed digitization and preservation of records. Out of those five bodies, one was Indian Judiciary.

Mr. Talvant Singh stated that there are some major concerns which need to be catered while preserving the disposed case records. Data is huge and heterogeneous because each court is maintaining their data in different ways. There should be standard retention policy as per case types. Preservation should be independent of technology. It must be free from wear and tear. Preserved data should be as accurate as possible. There should be centralized repository.

He also illustrated that under nation digital preservation program CDAC team is continuously interacting with Delhi District Courts, High Court and Supreme Court to understand the system requirement and develop a preservation environment for disposed case records. The first milestone is to create a trustable archival environment for the Indian courts records.
 So, the data can be preserved with accuracy and independent of technology. He further added that, trustworthiness can be achieved through:
- ➢ Authenticity
- ➢ Reliability
- ➢ And Accuracy

He emphasized on standardization of data. He classified Metadata into following categories:

Metadata

Domain Specific Metadata

Case Records

Technical Metadata

Representation Information
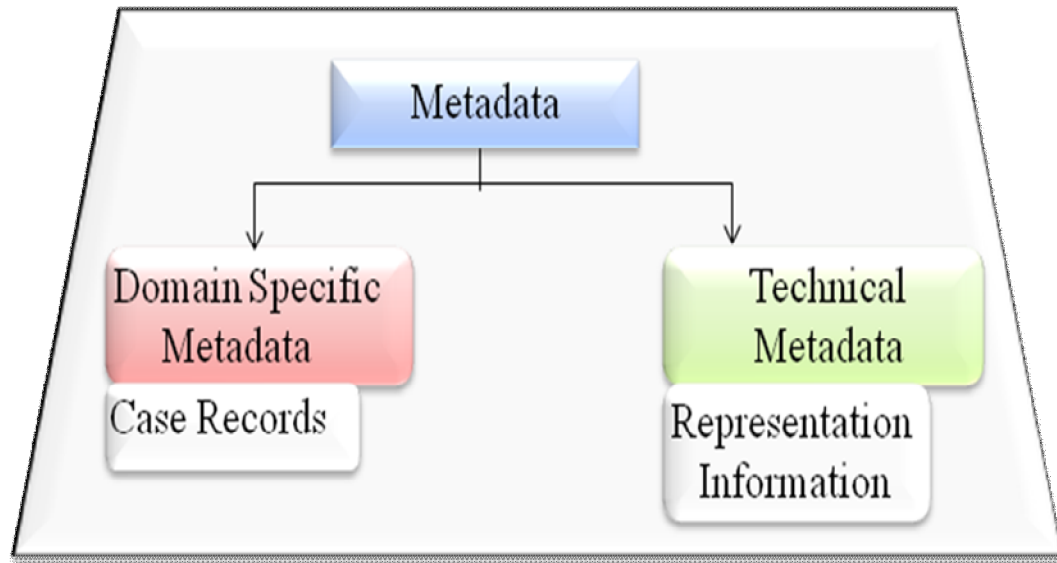
He explained further that Domain Specific Metadata contains information related to domain example: FIR number, case number, judgment date and case history etc. On the other hand Technical Metadata contains information related to technical specifications needed for the object example: hardware, software configuration etc.

He also covered topics such as Representation of data, File Format, Folder structure, Case File Structure etc. Regarding dissemination and access of data he said that, only on payment of charges the data base can be accessed, that to only the data which is in public domain can be accessed.

DAY-3 SESION 10 (10:30AM-11:30AM)
Use of mobile technology for timely communication by courts in India.

The speakers for this session were Mr. C.M .Joshi and Mr.V.Devanathan. Mr. Joshi started his presentation with a brain

storming activity, by giving the participants a task to find out the maximum number of methods of Mobile Communication. Participant who will suggest highest number of methods will win. He asked the participants to submit there answers; and then himself illustrated the methods of mobile communication as follows:

- Capturing the signs for service or device
- Photos
- GPS location of service of process
- Video clips
- SMS/MMS
- Voice recording

He further discussed how mobile communication can be used within or outside Judiciary:

- High Court to Lower Courts
- Lawyers
- Litigants
- Witnesses
- Interested parties

He informed that various Android Applications are there to track the case status. He further explained about the SMS facility for Interested Parties. Explaining the process he said, for that purpose the person interested must get himself registered on website or by SMS. It is a push as well as pull service. One can register for any number of cases. Lawyers can register for any multiple cases. Case status, copy, application, display board, whenever listed are also available.

He concluded his presentation by discussing- how SMS services work for lower courts. CIS has filed for phone numbers. SMS is sent to Advocates regarding filing, adjournment, disposal and next date. It can even be extended to any other event in the court.

The next part of the session was taken up by Mr.V.Devanathan. He started his presentation with a question –why mobile for courts? Answering to his own question he said, mobile are fast and more reliable medium. He then discussed why mobile technology, explaining this he

stated that as time is very precious, we need to save time. Since mobile is one of fast technologies it must be used effectively.

Adding further to his presentation he stated that mobile technology can be applied in Judiciary for advocates and litigants. In Administration it can be applied for High Court Judges, Judicial Officers, and Staff members.

Mr.Devanathan then discussed the kind of Information to be used through this medium. For that purpose he started with filling and numbering of cases. Once number is assigned, serial number may be intimated to advocate. It will enable the advocate to have an idea about the further course action to be taken in the matter. It can also be used to get the information regarding disposal of cases, adjournment, and nature of disposal. Information ascertaining the stage at which the case has reached can also be obtained.

Besides this Wi-Fi information KIOSKS have been installed in the court campus, where the advocated and the litigants can come and take the information about there cases.

He deliberated the information which can be provided by the High Courts to the Subordinate Courts. Information regarding case update, regarding long pending cases can be easily availed. Information can also be given to Judicial Officers. Information to staff members can also be given regarding maintenance of attendance, stenographer allotment to courts, allotment of court officers to court, record management system. It has also been helpful in sensitization, maintenance and security of records.

DAY-3 SESSION-11 (12:00PM-01:00PM)
Demonstration on E-filing: How it works.

The resource person for this session was Mr. Arun Bhardwaj. This session was more of a practical session, in which the full process of e-filing was taught to the participants, various features of the E-filing website were illustrated. In our courts effect of E-court project can be seen in the following forms:

- E-filing
- E-court fees
- E-courts
- E-inspection

More than $1/3^{rd}$ of the courts in Delhi are E-courts, they have been digitalized completely. E-filing has been made compulsory in Company, Taxation and Arbitration.

He further explained that the following categories can file cases:

- Advocates
- Litigants
- Law Firms

He step by step demonstrated the procedure of filing a case online. Starting with Advocates, he mentioned that every advocate has a login ID, which is the same as his Enrollment number. It will be in the order

"Initial alphabet of the state/ Enrollment number/year of registration"

Password will be same as his Enrollment number.

He then demonstrated the process if the case is to be filed by litigant and then by a Law Firm. In case of law firm one of the members of the law firm who has been enrolled has to register through the name of the firm. Name of the firm will have to be filled; new password will have to be set. He further deliberated the guidelines for usage of password:

- Do not share password
- It must consist of six characters, with at least two specific characters
- Can be reset

- Three chances are given to fill your password, if at third time also wrong password is entered, it will get locked.

The session was followed by following suggestions:

- ➢ The High Courts have full control over the website
- ➢ It has to be locally managed
- ➢ A new committee can be created to operate website
- ➢ Training of administrative staff necessary
- ➢ Proper training for computer training operation staff should be conducted
- ➢ Prescribed qualification shall be set for technical staff
- ➢ Websites have to be optimally operated

Hon'ble Judge from Madhya Pradesh added to this conversation that we have already appointed two efficient technical staff.

Further the Hon'ble judge from Bombay High court shared his problem that they have problem of availability of funds, which is a problem with every court, but only the degree of problem is different.

DAY-3 SESSION -12 (02:00PM-03:00PM)
Court website and Intranet project to facilitate wider and easy communication with all stakeholders

The session was taken by Mr. K. Narshima Chary. He started the session by discussing the Information and Communication Technology. He stated effective communication is giving, receiving or exchanging of information, opinions or ideas so that the message is completely understood by everybody involved. Information and communication are effective, if:

- The information meets the needs of the recipient,
- The information is correct,
- The recipient can access it,
- The recipient can understand it,
- The recipient can trust and accept it,
- The recipient can act on it and will know what to do next

- The recipient feels confident that the actions he or she undertakes will achieve the result envisaged.

He further discussed that any content and presentation must be accessible or acceptable. These are sin qua non for wider and easy communication of any information. Information needs of general public were discussed by him.

A website needs to have open availability of practical, correct and complete information about

- Rights, liabilities and disabilities of the people,
- Legal aid, advice and other services,
- Court procedures and processes
- Rules and regulations,
- Policies and decision support system

He then discussed the things one must keep in mind while considering the technology and preparing the content of information for litigant public,

- Competence of user
- Easy language
- Perception about the courts

Level of Website facilities for consideration

- Information online about public services
- Communication/interaction: Downloading of forms
- Communication/two-way interaction: Processing of forms
- Transaction: E-filing, E-court fee, Video conferencing etc

Because the information provided impacts the access to the justice delivery system, addresses the problems of delay, and enhances public trust in the judiciary through transparency, it cannot be left to others and it is proper and fair if the judiciaries take up this responsibility on themselves.

He further added that users that come to a Court website generally includes Members of the Public, Journalists, Self-represented Litigants, Practitioners (Lawyers, Paralegals, Stenographers, Translators), Researchers (Law Professors, Law Librarians, Law Students), Commercial Law Publishers etc. Discussing upon the contents on a

court's website he stated following things must form part of a courts website:

- Jurisdiction of court
- Docket and court schedule information
- Case information and file
- Rules of Practice and practice directives.
- Alternative Dispute Resolution (ADR) information.
- Web Site Policies (Copyright, Privacy, Accessibility, etc.).
- Educational materials
- Court news (initiatives and projects)
- Court forms
- Court fees and fines
- Annual reports of the court, if published
- Frequently asked questions
- Key documents (e.g. child support guidelines; sentencing guidelines)

He further discussed the benefits that litigants and lawyers derive due to these websites. It leads to availability of up to date information. Current cause-lists, orders and judgements are available on internet free of cost. It leads to transparency in the functioning of Courts.

He showed his concern about the barriers to communication faced by people. These barriers are those which make the message doubtful for the reader to understand it and they get confused to interpret the meaning for which the message is sent to them. Products should be designed and developed in such a way that it can be used by people with or without disabilities.

Mr. Chary emphasized that the Guidelines for Indian Government Websites (GIGW) shall be followed. It deals with Content, Accessibility and Acceptability of web content. Three focus domain of GIGW are:

- Universally acceptable
- Citizen centric
- Anywhere, Anytime up to date information

The challenges faced by the government web spaces were shard by him. He stated there is lack of policies and procedure for effective management. Improvement is required in quality of information and services.

He emphasized the need to comply with the GIGW. He stated that these guidelines are framed to make Indian Government Websites conform to the essential pre-requisites of **UUU** trilogy which are:

- ❖ Usable
- ❖ User-Centric
- ❖ Universally Accessible

He further elaborated that these guidelines are divided into three categories:

- ▪ Must-**Mandatory**
- ▪ Advisory – **Should**
- ▪ Voluntary – **May**

Mr. Narshima Chary discussed the barriers for effective communication. The first and foremost problem that is faced is lack of trust. People will access the website if the website is authenticated one and the content is trustworthy. Discussing upon- How to cope up with this problem? He suggested that this problem can be solved by copyright policies, Government of India Identifiers, certification etc. Another problem for effective communication is Physical Disability, people with disabilities (visual, hearing, mobility and cognitive disabilities) have difficulties when reading or comprehending a text. He further explained the types of disabilities as:

- • Functional
- • Situational
- • Age Related

Suggesting solutions to problem of effective communication he stated that, by providing equivalent alternatives to auditory and visual content, using simple language, formulating the data in a particular format we can overcome these problems. Let technology be inclusive of, visual impairment, hearing impairment, mobility impairment, learning impairment etc. It should be easily accessible; Digital Taking Books in PDF format will also prove to be helpful. Lack of feedback has also been a problem, which must be urgently followed.

DAY-3 (03:00PM-04:00PM)
LIBRARY SESSION

DAY-3 (04:00PM-05:00PM)
COMPUTER SKILLS TRAINING

DAY-4 SESSION-13 (09:00AM-10:00AM)
COMPUTER NETWORK SECURIETY FOR COURTS

Professor (Dr.) Geeta Oberoi gave a hearty welcome to the resource person and the participants. She introduced the chair persons for the session, Hon'ble Mr. Justice Kurian Joseph to the participants.

The session started with the presentation of Mr. Navneet. He explained interconnection of different network devices and systems such as desktops, router, switches and servers is called computer network. A specialized field in computer networking that involves securing an organization's Computer network infrastructure is called Network Security. Moving on to Network Security Police he stated, a security policy is a document that outlines the rules, laws and practices for computer network access, they must necessarily be followed. It clarifies how much security in needed. The security policy identify assets in a wide range, including critical databases, vital applications, vital organization information, shared drives, email servers, and web servers. Security Policy informs users, staff, and managers of their obligatory requirements for protecting technology and information assets. He further discussed threat sources, attacker's motive or goal and attack methods with the help of following chart:

Threat Source	Attackers Motives/Goals	Attack Methods
• Employees • Malicious • Ignorant • Non-employees • Outside attackers • Natural disasters	• Deny services • Steal information • Alter information • Damage information • Delete information • Make a joke • Show off	• Social engineering • Viruses, Trojan horses, worms • Packet replay • Packet modification • IP spoofing • Mail bombing • Various hacking tools • Password cracking

Mr. Navneet told us about the following types of threats:

- DOS/DDOS
- Website Defacement
- Email Spoofing
- Phishing
- APT
- BOTNETS
- Targeted attacks
- Malware Propagation
- Unauthorized access
- Exploitation of Vulnerabilities

He explained Denial of Service (DOD)/Distributed Denial of Service attack (DDoS) as an attempt to make a computer resource unavailable to its intended users. It affects the availability and utility of computing and network resources and also attacks can be *distributed* for even more significant effect. He further explained the whole process of Denial of Services with the help pictorial representations which is as follows:
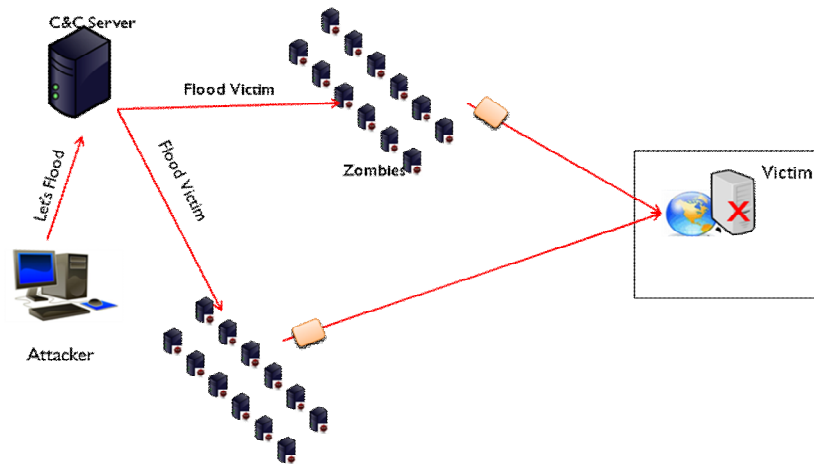
Coming on to Website Defacement, he deliberated that website defacement is an attack on a website that changes the visual appearance of the site. These are typically the work of system crackers, who break into a web server and replace the hosted website with one of their own. A message is often left on the webpage. Most of the times the defacement is harmless; however, it can sometimes be used as a distraction to cover up more sinister actions such as uploading malware.

He explained the mechanism of Email Spoofing, as when an e-mail is made to appear to come from someone (or someplace) other than the real sender (or location) it is known as email spoofing. An Email is forged to obscure the identity of the true sender of the message. Many viruses and worms propagate by sending spoofed or forged email messages. It may be utilized by bad people in many ways. Email may claim to be from system admin requesting users to disclose sensitive information. Email may offer a product that requires you to click on a link that will lead to malicious site. Sometimes spoofed email may claim to be from Microsoft requesting recipients to install fake update etc.

Explaining the concept of Identity Theft, he expressed Fraud committed or attempted using the information related with identity of another person without his or her permission is identity theft. Identity theft is a crime in which an imposter obtains key pieces of information such as Name, Address, and Bank Account Numbers and uses it for their

own personal gain. He explained the concept of Phishing. The term Phishing is derived from the word **Fishing**

Password + fishing = phishing.

Phishing is the act of sending a communication (Email/Message/Fax/SMS) to a user falsely claiming to be a legitimate enterprise/Brand in an attempt to scam the unsuspecting user into disclosing sensitive private information that will be used for identity theft and demonstrated the mechanism of phishing by the following pictorial representation:
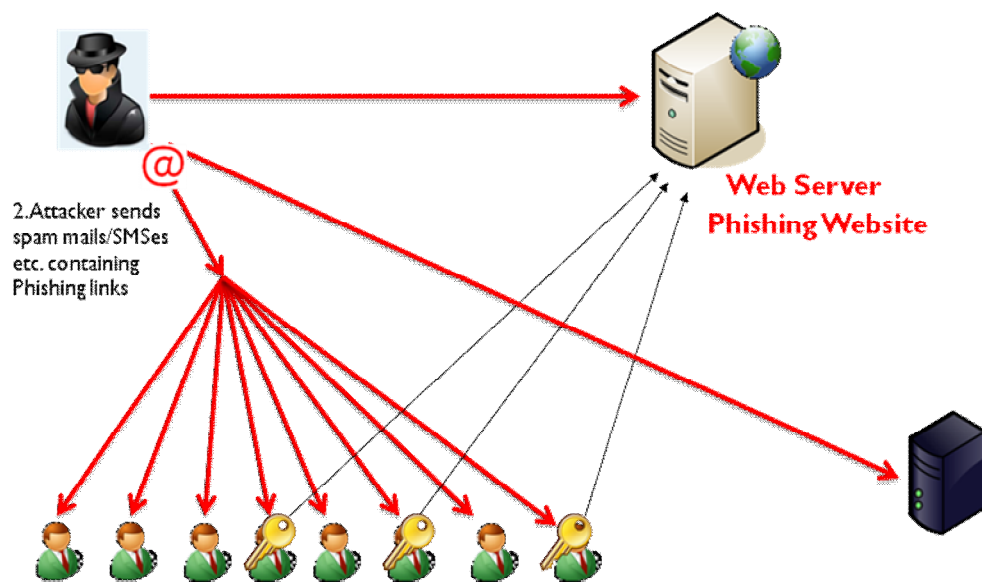
He emphasized that whenever any warning comes one shall not click it because it may be malicious site. Deliberating the concept of Botnet, he added Botnet is,

Bot +Network =Botnet

It is a compromised machine controlled via remote malicious servers.

Networked bots controlled with a single commander such as Botmaster, Botherder. Following are its uses –spam, identity theft, piracy, DDoS. Targeted threats, targeted attacks were also discussed by him. Describing Malware as a Malicious Software he stated, a Malware is a set of instructions that run on your computer and make your system do something that an attacker wants it to do. He categorized them into following heads:

- Viruses
- Worms
- Trojan Horse
- Spyware
- Adware/Backdoor/Rootkit etc

He deliberated that propagating vectors of a malware are social engineering, compromised websites, drive by download, removable media/file sharing.

Mr. Navneet emphasized on Firewall. He described Firewall as a hardware or software system that prevents unauthorized access to or from a network. It is implemented in both hardware and software, or a combination of both. It sits between two networks, it is used to protect one network from the other, places a bottleneck between the networks. All communications must pass through the bottleneck – this gives us a single point of control. Functions of firewall are filtration, inspection, detection, logging, alerting, allows address reuse.

Discussing the types of fire wall he started explaining Network Layer Firewall. He stated Network Layer firewall uses technology packets inspection. It performs ingress and egress filtering on packets. It uses transport layer information only. It does not allow packets to pass through the firewall unless they match the established filter rule set. Network layer firewalls generally fall into two sub-categories,

- ❖ Stateful
- ❖ Non-stateful.

The session was followed by queries by the Hon'ble participating judges, following were the queries:

Q.) Can Firewall be used for blocking any site?

- ➢ It was answered by Hon'ble Justice Sanjeev Sachdeva (Delhi High Court) as, firewall are filters with which we can stop from being attacked and preventing the use of various malicious sites. We have already done it in Delhi High Court.

Mr. Navneet added his suggestions to the above mentioned discussion that any one antivirus is not sufficient in itself, one antivirus may have a few feature while the other may have other distinctive features. Hence we can not say that any particular antivirus is sufficient in itself. He

further elaborated that there are certain benefits as well as a few drawbacks of Ubuntu. There is no uniform security protocol. If any problem arises at any of the courts it has it be solved.

Hon'ble Justice Sanjeev Sachdeva suggested McAfee, Malware Bite, Kaspersky are few of effective anti viruses that can be use.

Q.) What kind of software as an orgnistion or as an individual we should use?

➢ One can install only one application at a time. If we have particular software and later we want to add another software then first we have to uninstall the old one.

Q.) How is quick heal?

➢ He suggested that any one antivirus is not sufficient in itself, one antivirus may have a few feature while the other may have other distinctive features. Hence we can not say that any particular antivirus is sufficient in itself. All and all it is good. It was further added that Linux service system is used because it is robust, in it we can remove few of the applications which is not possible in any other operating system.

Q.) Is there any standard security guidelines for judiciary?

➢ NO

Q.) What was your security response when Prime Minister's Office was attacked?

➢ Mr. Navneet answered that we blocked attackers IP address.

Q.) Is there any full proof program as to security? Or protocol for security?

➢ The security system must be fully upgraded, if any red sign appears in any website then please don't open it must be malicious. Keep updating your security system regularly.

Q.) Is there any backup system in Delhi High Court?

➢ Justice Sanjeev Sachdeva (Delhi High Court) answered this question that, we have three backups, also with CDAC. High Courts entire data gets stored in CDAC, we also trying to do the same with subordinate courts. Presently subordinate courts data gets stored in High Court data. He also requested everyone not to send there judgments by email and also not to drop them in drop box, as it travels from other country's server, security gets hampered in that way. He further explained the concept of click jacking as- the pop ups which show controversial news, the moment we click it whole of our system gets jacked.

Mr. Navneet added to this that Linux may be free, but the security has to be purchased, because in case of difficulties there has to be someone to take up the responsibility.

Hon'ble Justice Kurian Joseph added his valuable suggestions to this session and concluded this session by stating that, we need to have a Uniform Security Guidelines for the whole of the Judiciary. He further emphasized that please kindly advise the Supreme Court to make Uniform Guidelines to be followed by the High Courts. With this session 13 came to end, so kindly avoid it.

DAY-4 SESSION-14 (10:30AM-11:30AM)
Applications (Android Apps) that can be used by Judges in Courtrooms.

Mr. Talwant Singh began the session, by demonstrating features of application- E-Avakash. E-Avkash is basically a Judges leave Information System. It gives information about the judges, illustrating the details of judges who are on leave. One of the benefits of E-Avakash application is that it is an in hand information updating technology. When we open the app it asks us to put our username and password in it. Dash board of E-Avakash shows following particulars:
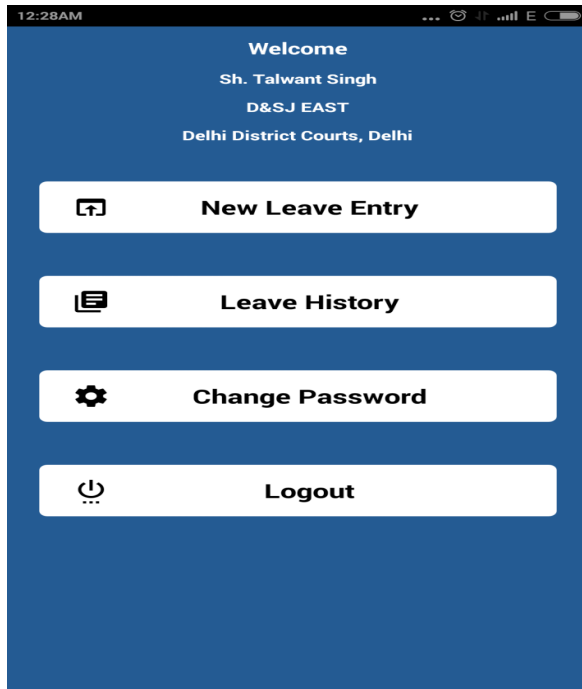
Explaining how to use the application he stated, you have to select the type of leave you want, and then submit it. It keeps a track of all the leaves taken by the Judicial Officer. It helps in managing leaves more conveniently.

The later part of the session was taken by Mr.K.Narshima Chary the major concern of his presentation was on Android Application that can be used in Court rooms. He stated that the applications which can be used in a courtroom must fit into the work according to the needs. These applications were first made in JAVA but keeping in mind that High Court is undergoing digitalization, we made it in Android. Android is free and an open platform built on Linux. It is also an open source solution for mobile devices offering a complete software stack including operating system, middleware and key mobile applications. Mr .Chary demonstrated the features of application EMCROP, which can be used for electronic management of courtroom. Illustrating its features he stated that it helps to maintain judicial database. It displays court based cause list, in which cases can be searched stage wise, police station wise, age of the case wise, party wise etc. In the cause list populated each case number is linked to the Case details. Further he demonstrated how cases can actually be searched it that application. One of the distinctive features shown by this application is video conference. It is being efficiently used at court level, but still there are difficulties in using it at jail level and with witnesses. Besides this dispositions can also be

viewed and amended on fly. Another peculiar feature of this application is that we can insert file. Whenever a deposition is recorded and signed by the Judge and for that matter any scanned copy of document can be uploaded to be part of particular case through this application. We can even delete files, view case history, daily orders, online E-orders/ judgments.

He deliberated we can access legal database, access to statutes rules regulations etc. and also law journals, Law Suit, Supreme Today, templates for issues, charge, sentence, guideline. We can access information relating to state matters, appeal, and revision application of higher courts, High Court cases, and Supreme Court cases. He also showed videos demonstrating use of the application to the participants.

The session was followed by interesting questioner and a healthy discussion:

Q.) I visited the website of American High Court as well as British Supreme Court. In Australian website one has to register themselves, and then a password will be sent to the email id. Only through that password you can access the website, whereas the website of Supreme Court of United Kingdom was not secured. So which one is safe? (Hon'ble Justice- Tripura High Court)

➤ Mr. Navneet answered to this question as Australian website is better as it is secured.

Q.) How to preserve and what to do of very old Judgments?

➤ Hon'ble Justice Kuria Joseph replied that cases of monument importance must be preserved. Idea of minimum two backups must be used. Backup must also be renewed every ten year.

Q.) Which court has not started digitisation yet? (Hon'ble Justice Kurian Joseph)

➤ Rajasthan, Jharkhand, Orissa, Chennai, has not started digitization yet.

Q.) Are the computers in court campus used properly?

➢ Yes.

By the end of the session every Hon'ble participating Judge was of the view that, debate has started and we'll keep circulating it to others as well. We need to deeply peruse into various areas. Private security agencies must be talked to and work together with them.

Hon'ble Justice Kurian Joseph referred an article from the study material provided to the participants and emphasised on making a uniform policy and coordination on part of the employees for its effective implementation. Care must be taken to avoid unauthorised and improper use of computers. He also shared with us, the letter that he had received from ninth standard student, showing his concern about E-waste. He stated that it has increased my concern about E-waste policy....... He emphatically quoted that nothing in this virtual world is completely secured, it always gets recorded and there is nothing, which can be lost permanently, everything is recoverable. All it need is our effort and time. With this he called of the session.

Dr. Geeta Oberoi concluded the workshop by giving thanks to Hon'ble Justice Kurian Joseph and all the participating High Court Judges.

DAY-4 SESSION-15 (12:00PM-01:00PM)
PROGRAM EVALUATION AND FEEDBACK