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Scheme: Micro-electronics & Nano-technology Development Programme **Budget Outlay:** Rs.35.00 crore (Plan) **Objective:** To establish nano-electronics & microelect-ronics base in the country through setting up of centres of excellence, technology development & capacity building through sponsored R&D projects in the area of nanoelectronics, nano-metrology, micro-electronics, MEMS and VLSI design.	(a) **Nanoelectronics Centres at IITB & IISc.** **IITB**: Procurement of equipment: 2nos, Process development: 2nos., Manpower to be trained: 200 nos, Publications, patents. **IISc**: Procurement of equipment: 6 nos, Process development: 4 nos, Product develoment:1 no, Man power to be trained :100 nos, Publications b) **Nanometrology at NPL, New Delhi** - Establishment of optical profiler and DCC Bridge. - Calibration service for 3 parameters i.e. step height, low resistance and	It would enable to create a strong R&D base in nanotechnology in the country.	1. Commissi - oning of equipments would continue. 2. Work on deliverables would continue. 3. Teaching & Research would continue.	a) **Nanoelectrionics Centres**: **IITB:** Facility created: 1no Process developed: 2 nos Publications: 56 nos Patents:6 nos Manpower trained: 138 nos., Technology Transfer:1 no. **IISc:** Eqpt. Procured = 2 no Equpt. Ordered= 4 nos Process developed: 3 nos. Publications: 19 nos. Manpower trained: 63 nos. b) **NPL:** Established optical profiler. 3 papers published. One copy right accepted. Manpower trained: 50nos.

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	low level current. - publications. - copyrights - Manpower to be trained: 50nos. c) **Indian Nanoelectronics Users Programme(INUP) at IITB & IISc** **IISC:** Creation of Multimedia center: 1 no Creation of Seminar Hall: 1 no Process development: 2 nos. Manpower to be trained: 60 nos. Familiarization workshops: 2 nos. Hands-on- training workshops: 2 nos. **IITB:** Familiarization workshops: 2 nos. Hands-on- training workshops: 3 nos. Research projects: 3 nos. Manpower to be trained: 100 nos.			c) **INUP:** **IISc:** creation of multimedia center and seminar Hall is in progress. Process/ Product development: 2 nos. Manpower trained: 100 nos. Familiarization workshop:1 no Hands-on-training:2 no. **IITB:** Familiarization workshop: 2 nos, Hands-on-training:1 no Research projects: 18 nos. Manpower trained: 273 nos

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	d) **Development, fabrication, Productionization of ASIC based Digital Programmable Hearing Aid (DPHA) and its Deployment with C-DAC Thiruvananthapuram** - ASIC prototypes to be fabricated: 20s - Fabrication of PCB for Body Worn type DPHA: 20-30 nos. - Enclosure fabrication for the Body Worn type DPHA: 20-30 nos.	It would further enhance India's emergence as a global destination of VLSI design & embedded systems design		d) **DPHA:** The processes for fabrication of ASIC prototypes, PCB and enclosure for the Body Worn type DPHA are in progress
Scheme: Technology Development Council **Budget Outlay:** Rs.32.00 crore (Plan) & Rs.1.50 crore (Compl. EBR) **Objective:** **IT for Industrial Applications** To strengthen local base for R&D/ application in Electronics and IT in the field of Industrial Electronics, Agriculture and Water Resources.	**National Mission on Power Electronics Technology (NaMPET)** • 5th and final industry-academic meet • Field implementation of Renewable Energy Application project	Enhancement of R&D infra-structure and design capability in the area of Power Electronics Technology contributing to design-led Electronics Hardware manufacturing.	Sept./Oct., '09 July, '09	5th and final Industry-Academic Meet was held on Oct.22-23, 2009 at Thiruvananthapuram. The first field unit has been dispatched for installation. Other

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				units are also being dispatched.
	• Evaluation and possible technology transfer of Full Spectrum Simulator		Oct.,'09	TOT for Full Spectrum Simulator will be taken up after some more field trials which are continuing.
	• Field installation of high power STATCOM at IT Park, Trivandrum		Oct.,'09	Field installation activity of STATCOM at IT Park, Trivandrum has progressed further. Results are being obtained.
	• Completion of design and hardware assembly on Railway Application projects		Nov.,'09	Hardware assembly and testing of the traction control system for railway application is in process.
	Automation System Technology Centre (ASTeC)			
	• Completion of the upgradation of Automation Lab at C-DAC(T)	Availability of cost-effective solutions of Automation Technologies to Indian user & manufacturing industries.	June, '09	Upgradation of Automation Lab at C-DAC, Trivandrum has been completed.
	• Initiation of remaining technology projects as per adopted roadmap		March, '10	All major projects on various identified technology modules have been initiated.
	• Holding of Industry-Academic interaction workshop/seminar		Jan., '10	The 2nd Industry-Academic interaction workshop was held in December, '09 in Chennai.

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	• Review and report of progress of all major on-going projects		Feb.,'10	Periodical reviews of all on-going projects are being conducted and projects are progressing satisfactorily.
	Other R&D Projects. • Intelligent Transportation System (ITS) – completion of initial design and detailed project report	Demonstration and availability of technologies to prospective users and manufacturing industries.	Jan.,'10	The first Steering Committee meeting has been held. Initial design work of all the projects have started.
	• Initiation of new application development projects for agriculture/ textile, etc.		Dec.,'09	A project proposal on Electronics for Agriculture & Environment (e-AGRIEN) with C-DAC, Kolkata as nodal agency has already been formulated and the concerned Working Group of DIT has also recommended the same for approval
Emerging Areas in IT To build and enhance competencies in Emerging Areas of Information Technology.	**Emerging Areas** Ongoing projects in Scientific Computing, Ubiquitous Computing and Perception Engineering will be progressed and new projects may be initiated in other emerging areas.	Proliferation and absorption of emerging technologies in the country would be facilitated.	March 2010	Projects completed 1. Pollution Monitoring. 2. Virtual Observatory India. 3. High Performance Computing facility at NMRWF. The achievements of the projects were presented at the workshop on the subject.

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	Nurturing New Areas Ongoing projects in the areas of Smart Cards and RFID will be progressed.			A proof of concept for tracking of Speed Post parcels using RFID progressed. It will be scaled up as per requirements.
	Technology Innovation Technology Incubation and Development of Entrepreneurs (TIDE) scheme and Multiplier Grant scheme (MGS) will be progressed.	Innovation and entrepreneurship would be promoted	March 2010	The Expansion of TIDE scheme to additional 12 centres and 2 virtual incubation centres have been approved. Proposals are invited from 60 institutions.
	Expansion of Technology Innovation Promotion Programme will be taken-up.			
E-Commerce The program would result in proliferation of e-commerce in the long run	A series of domain specific applications on mobile platform would be initiated	Proliferation of m-commerce in the country.	March 2010	Projects have been initiated to develop standards for inter-operability of mobile payments & test bed for voice enabled mobile banking transactions.
Bioinformatics Initiative Better research environment in Bioinformatics in India.	1. Indian Botanic Gardens Network: Developing web base software tools for digitization and identification of RET species and varieties	India's potential as a Global player in Post Genomic Bioinformatics Research would be Asserted	Code Development -Sep 2009 Euclid studies - Dec 2009	Activity Ongoing

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			Database of taxa – March 2010	
	2. Web-enabled Protein Structure Prediction Software		Validation – Sep 2009 Web enabling - Sep 2009	Achieved
	3. Four centers of Excellence for Research and Training have been established		Conducting Modular courses – continuing process Setting-up and initiation of research projects - Sep 2009	Achieved
	4. Computational Workflow for High throughput Genome Analysis		SRS - Sep 2009 Design of protocol - Dec 2009	Achieved

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	5. Agri- Bioiformatics Promotion Programme		Setting-up -Sep 2009 Initiation of courses –Sep 2009	Achieved
	6. North East Parasite Information and analysis Centre – an insilico approach		Setting-up, database architecture design – July 2009 System design, trial hosting – Dec 2009	Achieved
	7. Development of microbial database of North East India		Setting-up - Sep 2009 Characteri-zation, data generation, finalization of GIS- Dec 2009	Achieved
Free & Open Source Software (FOSS) Initiative Development and proliferation of Free/Open Source Software (FOSS) in India for bridging the digital	Project NRCFOSS Phase-II will be launched for implementing the recommendations of the FOSS Adoption Framework.	• Implementation of FOSS Adoption Framework and proliferation of Bharat Operating	March 2010	BOSS/Linux Advanced Server released. Enhanced BOSS Desktop ver 3.1 brought out.

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divide and helping in creation of a knowledge society.		System Solutions (BOSS) in the country.		GCC Resource Centre established at IIT, Bombay.
	Facilitate proliferation of the Indian Version of GNU/Linux Operating System - Bharat Operating System Solutions (BOSS), in the country.		Throughout the year	Open Source walk-in e-learning laboratory established at C-DAC, Hyderabad. Developed EduBOSS, a Debian based GNU/ Linux distribution for schools. FOSS electives introduced in select Engineering colleges.
IPR Promotion Programme	• Profile of IPR filed and Granted	50 IPRs to be filed	March 2010	32 cases filed
	• SIP-EIT Scheme to provide support to SMEs for International Patent in Electronics & ICT	25 Cases to be Processed. Scheme to be Publicized across the country	March 2010	18 cases out of 24 received supported Publicized the scheme at 4 workshops.
	• Conduct of Workshops/ Seminars for IPR awareness	10 Seminars		6 seminars conducted

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	Technology Development Projects 6 ongoing and 2 New initiatives on setting up of (i) Patent Information Center for E&IT (ii) Center for development of Tools and Technologies for avoidance of Software Piracy		March 2010 March 2010	Ongoing Projects are progressing satisfactorily. Patent information centers at Pune and Hyderabad are being set-up.
Scheme: Convergence, Communication Broadband and Strategic Electronics **Budget Outlay:** Rs.22.00 crore (Plan) **Objective:** To undertake R&D in Convergence, Communication & Broadband Technologies and Strategic Electronics	Initiation of 10-15 projects in development/application of the next generation wired/wireless communication & broadband technologies such as SDR, Cognitive Radio, MIMO, OFDM, Wi-Fi, WiMax, WSN, UWB, TETRA, Broadband on Power Line, NGN & projects in applications for disaster management, safety, security and surveillance. To arrive at specifications for users suiting to Indian conditions, demonstration -and testing of new	The R&D activities will result in establishing capability for development and application in emerging technologies bringing economic benefits and e-inclusion, safety, security and improved quality of life. The R&D activity will result in creation of knowledge capital and	On an average 4 projects in each quarter are proposed to be initiated. The projects are generally of 1-3 years duration.	- Seventeen new project proposals are being processed for approval in the following areas: -Next Generation Wireless 4G Communication -Converged access devices & Digital Living -Wireless Sensor Networks -Broadband Technologies, UWB, Modem, Antenna -IP based technologies -SDR & Cognitive Radio -Converged Network, FMC & mobile computing -ICT applications in strategic,

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	products and technologies developed. Execution of MoUs and Transfer of Technology (ToTs)	provide users hands on experience & exposure to latest technologies, which will be an asset for the country		navigational aids on Land/ Air/ Under water communications -ST radar & Advanced Robotics for strategic applications. -There are 27 ongoing projects that are under implementation and are being monitored by respective PRSG.
Scheme: Components & Material Development Programme **Budget Outlay:** Rs.13.00 crore (Plan), Rs.0.60 crore (Non-Plan) & Rs.5.60 crore (IEBR) **Objective:** To support Infrastructure development and R & D projects for the development of Electronic Materials	Development of multi-layer coatings for high density optical storage device	To enhance the writing speed of re-writable optical disk for information storage	March, 2010	Multilayer coatings with Ge-Sb-Te and Ag-In-Sb-Te were developed for testing at user industry.
	Development of liquid crystalline polymers	To develop Liquid Crystalline materials and demonstrate one application	September 2010	Liquid crystal polymers (LCP) were developed for fabrication of thermistor type safety device.
	Development of optically active polymers for data storage applications	To develop cost-effective alternative to poly-carbonate for CD/DVD substrate	March 2010	Blends of polycarbonate (PC) with proper % of poly methyl methacrylate (PMMA) is being developed for cheaper raw materials. Industry trials are being performed.

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	Oxide films and nanostructures for advanced sensors & energy systems	To develop photovoltaic cell for solar energy conversion	April 2011	Oxide films with various metal oxides (ZnO, TiO_2 etc.) are being synthesized and characterized for desired efficiency.
	Studies on synthesis and characterization of p- type ZnO thin films for electronic paper and spintronix applications	To develop p-type ZnO for exploring possible application at e-paper	April 2010	p-type ZnO is being synthesized and characterized.
	Magnetic materials for high-permeability GHz-frequency inductors	To develop inductors of high permeability and GHz frequency	April 2011	Capital equipments were procured and materials are being prepared for characterization
	TMR materials and systems for very high density data storage technology and spintronic devices	To develop TMR materials for information storage, and emerging technology	April 2011	Tunable spin transport medium based on doped transparent conducting oxides developed. Fabrication of TMR materials & Development of magnetic semiconductors with tunable ferromagnetic are being explored
	Synthesis of Nano NTC material and development of chip in glass fast response thermal sensors	To develop fast response nano NTC sensors	April 2011	NTC thermistor composition ($NiMn_2O_4$) was synthesized to aim target material for thermal sensor

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	Development of lead free thick film thermal sensors using RuO_2 based nano size complex mats	To develop lead-free thermal sensors	April 2010	Nano sized ternary complex materials (RuO_2) are synthesized. Measurement/ field trials conducted with the test structures prepared by optimized materials.
To develop envi-ronment friendly electronics materials for the components	Development of lead free x-ray absorbing coating materials for TVs	To develop lead free material for X-ray absorption	April 2010	Lead-free x-ray absorbing compounds (Ba_2ZrO_4, $BaBi_2S_4$, and Bi_2O_3) were synthesized. Large scale batches of silicate glasses are prepared. Thickness dependency for X-ray absorption using TEM/ Thermal analyser/UV-Vis spectroscopy carried out. Trails for polymer adhesive coating on glass substrate/cotton cloth, coating of inorganic material using oil/water base nitrocellulose, ethyl cellulose, commercial colour guard on cotton cloth, etc. were conducted
To support development and initiatives to eradicate the issues related to electronics products affecting the environment	Establishment of testing facilities for the hazardous substances as per European Union (EU) Directive of Restricting the use of hazardous substances (RoHS)	To establish a centre for testing of hazardous substances and RoHS certification	October 2010	capital equipment are purchased. NABL accreditation, training of the manpower for international testing methods are under progress.

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Photonics To nurture photonic technologies relevant in IT and optical communication as well as develop technologies in the broader application areas of Photonics through sponsored R & D projects.	Development of processing technology for recycle & reuse of electronic waste	To develop low cost technology to recycle electronic waste	September 2010	Optimization of processing technology of metal, plastic and glass is under progress.
	Report on Fluorescence Correlation Spectroscopy Workshop at TIFR	Spreading the base of Biophotonics for Health care	June 2009	Report submitted.
	Follow up with various groups		March 2010	Follow up initiated.
	Evolving of fellowships/networking programme in Biophotonics		March 2010	Being broadened to include other areas of Photonics also.
	Technology for fabrication of RE doped Fiber laser by solution doping. Patent application	Fiber laser Development	Feb 2010	In process.
	Completing the setting up of Infrastructure for Dev of High power fiber lasers by nanoparticle Deposition		December 2009.	The MCVD system from M/s Nexteon, Finland. Received at CGCRI. Site preparation being completed
	MBE growth of GaInNAs	Material Growth & Component Development	December 2009	The capital equipment received and being installed at SAMEER. GaInNAs material grown in test run.
	LPE growth of dilute III-V nitride materials by LPE		March 2010	Growth of InAsN with nitrogen content 0.2% achieved

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	Submission of application for Copyright/Patent	Dev of Approach for realizing FBG with Long term stability	September 2009	The patent application has been filed for review in the Indian Patent organization. International patent PCT being filed.
	Nanomaterials and devices Initial Trials and optimization to obtain sub micron/ nano particles of ZnO, ZrO_2 & TiO_2 in a Transferred Arc Plasma Reactor Optimization of CdSSe glass nanocomposite with respect to absorption edge cut off at 600-630nm. Preparation of organometallic/ inorganic precursors and process development of passivated free standing QDs of Cu_2Se Ag_2Se and TiO_2 Development of Zn-Sn-O and Cd-Sn-O thin films Nanomaterials based thick film sensors	Generation of Nano-powders, Nanocomposite & Quantum dots of metals/ semiconductors/ for Electronics Technology and allied applications	March, 2010	▪ Nanopowders of Aluminum were synthesized by TAPR at different power(250-300 A) and chamber pressure and characterized by SEM, EDX and AFM and XRD. ▪ XRD for oleic acid capped CuSe nanocrystal sample shows the formation of mixture of phases. ▪ Based on preliminary. results for the formation of Ag_2Se nanocrystals (average size 10-20 nm and Ag:Se ratio 2:1), further experiments executed by variation of surfactants and temperature. ▪ Optimised homogeneous and bubble free CdSSe doped glass nanocomposite. The absorption cut off for the same is 620 nm ▪ Nanosized NTC powder was prepared through SHS method ▪ The reliability studies indicated that out of the five NTC thermistor

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	Ultra high purity materials Testing and preliminary experiments to produce tantalum, niobium and titanium nanoparticles Experimental runs on Vacuum refining/ zone-refining system of gallium. Purification of Zn (6N-7N) Bismuth ingot preparation and crystal growth Establishment of Nano powder synthesis facility for refractory metals based on sodium flame encapsulation process	Process technology /Pilot plant scale production of ultrapure metals	March, 2010	▪ 7N pure Ga achieved. ▪ 6N pure Zn produced by multiple vacuum distillations. ▪ Specifications of process equipment for Bi frozen. Trial zone refining expts on 4N pure Bi were carried out to obtain ultrapure Bi. ▪ Hydrogen reduction of tantalum chloride conducted
	Materials for Renewable Energy Preparation of carbon aerogel based electrodes for super capacitor applications	Process for renewable energy material.	March, 2010	• Prepared RF gels using Ni-acetate (instead of Na_2CO_3) as the catalyst and electrodes with thickness of 100-150 μm. The electrical conductivities were found to be increased with increasing Ni-content. • Prepared carbon aerogel based electrodes using selected carbon aerogel composition and studied their electrical properties.
	Piezo sensors and Actuators Deve-lopment of device quality piez-oelectric films on Silicon substrates Unimorph actuator of targeted	Process/ Technology for sensors and actuators.	March, 2010	• Unimorph actuators fabricated. • Highly-crystalline, crack-free and dense PZT Thin-films

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	specifications.			have been achieved. The PZT thin-films exhibited excellent dielectric characteristics with a relative permittivity, ε_r of 1072 and tan δ= 0.02. • Optimization of piezo to non-piezo layer thickness is under progress.
Scheme: Electronics in Health & Tele-medicine **Budget Outlay:** Rs.13.33 crore (Plan), **Objective:** To promote development of medical electronic equipment, rehabilitation devices and Telemedicine systems.	• Initiation of project for the development of multi leaf collimator	Availability of indigenous technology for multi leaf collimator for medical linac machine thus making the 6 MV medical linac machine for cancer treatment comparable to international standards	April, 2009	Project initiated. First installment of funds released.
	• Development of dual energy linac in progress	Design of various sub-assemblies in progress	June, 2009	Design of subassemblies like target pneumatic system, carousel movement and power divider completed

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	• Construction of process laboratory for the fabrication of linac tube.	This will ensure the availability of indigenous linac tube to support the production of indigenous 6 MV linac machine for cancer treatment.	Jan, 2010	Facilities for radiation chamber and process laboratory are under construction
	• Initiation of new technology development projects	Indigenous development of software and hardware products for health sector	April, 2009	9 new projects initiated
Scheme: Technology Development for Indian Languages **Budget Outlay:** Rs.8.89 crore (Plan) **Objective:** The major objectives of the programme are: (1) To develop information processing tools to facilitate human machine interaction in Indian languages and to	**New Projects** Machine Translation system , Cross-lingual Information Access System , OCR and OHWR with increased accuracy and performance towards product development/deployment or initiating research for new language/s.	Planning for initiating Phase –II of the projects.	Initiation by March 2010	Conceptualization of phase-II being planned based on evaluation of outcome of Phase-I

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create and access multilingual knowledge resources/content. (2) To promote collaborative development of futuristic technologies leading to innovative products and services.	Setting up of Indian Language Data Centre, merger of existing ILDC operations and up-gradation of TDIL website and support for language CDs.	Establishment of Data Centre at TDIL	Initiation by March 2010	Project initiated
	W3C India Office in collaboration with W3C would be established and Finalization of Indian Language specific inputs / recommendations in selected W3C web technology standards	Establishment of W3C India Office and draft standards	March 2010	Project initiated
	Automatic Speech Recognition engines for Indian languages	Development of Automatic Speech Recognition in few Indian languages (Hindi, Tamil, Telugu, Bengali)	March 2010	Project being initiated
	<u>On-Going Projects</u> An Integrated Wordnet for North East Languages Assamese, Bodo, Nepali and Manipuri linked with Hindi and English Wordnets	Development of Word-net for Languages of the North East	March 2010	Project under implementation
	Parallel annotated corpora in the tourism & health domain in 11 Indian languages with Hindi as the source language.	Development of multi-lingual parallel Corpora.	March 2010	Project under implementation

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	Text-to-speech systems for Six Indian languages with Mean Opinion Score of above 3.0 would be developed. The TTS would be developed for visually challenged persons having screen reader facility in Indian languages.	Development of alpha version Text-to-Speech in few Indian languages(Hindi, Marathi, Malayalam, Tamil, Telugu, Bengali)	March 2010	Project under implementation
	100 hours of Bodo speech Corpora and IPA representation of Bodo language would be developed.	Development of Bodo Speech Corpora and its IPA representation	March 2010	Speech corpora recorded
	OTF fonts and draft standards for Indian Language Keyboard and script grammar	Development of Open Type Fonts & standardization of enhanced Inscript Keyboard	March 2010	Draft Script Grammar for eight Indian Languages viz.Bengali, Gujarati, Konkoni, Marathi , Maithili , Manipuri, Malayalam and Nepali developed.
	Generic Tool for NLP Applications	Dashboard Development Environment for NLP Applications, Punjabi Grammar Checker	March 2010	Project initiated.
	Consortium Mode Projects in the areas of Eng-Indian languages Machine Translation system , Indian Language-Indian Language Machine Translation System , Cross-lingual Information Access, Optical Character Recognition (OCR) and On-line handwriting Recognition	Up-gradation from alpha to Beta versions of the systems	March 2010	Testing and Evaluation of Alpha version has been undertaken.

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	systems			
	Trained Manpower in the Area of Natural Language Processing	Human Resource Development in Language Technology	March 2010	Approx. 40 trained manpower in the area of NLP generated
	Development of Sanskrit Computational Tool Kit and Sanskrit-Hindi Machine Translation system	Pre-alpha version of Sanskrit-Hindi Machine Translation system.	March 2010	Different modules are being ntegrated
	Development of Tools and Resources for North-Eastern Languages	Linguist resources like CLDR, Corpora, Dictionaries, Fonts, keyboards.	March 2010	Draft CLDR for Assame , Bodo , Nepali and Manipuri languages developed.
	National roll out plan project.	Release of balance six languages CDs (Bangla, Konkani, Kashmiri, Santhali, Sindhi and Manipuri).	March 2010	22 Lang. CDs have been made available for free use

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Scheme: IT for Masses (Gender, SC/ST) **Budget Outlay:** Rs.8.00 crore (Plan) **Objective:** Upliftment of Women folk and SC/ST	• To conceive and formulate projects for development of Women, SC/ST – through ICT	Capacity building of Women and SC/ST through infrastructure development, training of target groups in different states/ UTs.	▪ 3 new projects March 2010.	1. Chanderi integrated ICT for development programme (CIIDP) in Madhya Pradesh . 2. Computer learning centres in Govt. first grade Women colleges in Karnataka. 3. Capacity Building, education, and skills development for Women and SC/ST in IT using Language technology in Gujarat.
Scheme: Media Lab Asia **Budget Outlay:** Rs.5.00 crore (Plan), & Rs.20.00 crore (Compl. EBR) **Objective:** To bring the benefits of the information and communication technologies and other advanced technologies	❑ Integration of ongoing projects in Education including Disability related activities, Healthcare & Livelihood Generation. 'Lab to Land' projects.	Development of technologies, applications and deployment of models in the thrust areas of Media Lab Asia, viz. livelihoods, education, healthcare and rural connectivity	All the areas mentioned are being acted upon.	-470 RCI/MSJE recognized Institutions connected to Navashikhar- EDUSAT based network for Special Education. Benefiting more than 5000 students undergoing special education. -Computerized Braille

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for the benefit of the common man.		(application specific)		Transcription System installed in 36 schools where 80 teachers trained and around 3000 students are benefited. - Shruti-Drishti, a web page browser with option of presenting the displayed information in a verbal mode or in the Braille format or both installed in 32 schools & material supplied to another 7 schools. 64 Teachers trained and is beneficial for 4081 blind students including 2314 female blind students. - Web enabled Integrated Assessment tool for Mentally Retarded children (Punarjjani™) developed & installed in 8 schools of Kerala on a pilot basis. Benefiting nearly 850 Mentally Retarded students. - For Inclusive Education 321 hours (30 Nos.) of English Daisy Books and 347 hours (30 Nos.) of Audio Daisy books have been generated. 11 books in Hindi and 27 books in Hindi converted into

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				e-Text. 10 books have been generated in synthesized voice. 50 University level Books have been scanned using the flat bed & ADF scanner. 20,000 copies of CDs of these books have been distributed. A network of organizations working for digital books has been formed called the DAISY Forum of India. 74 organizations have already joined this forum. -Screen Reader software – SAFA™ (Screen Access For All) in Hindi and English reached to more than 1,000 Visually impaired regular users. A helpline is running to provide support to SAFA users. Approx. 18 SAFA training sessions conducted at different entities benefiting about 215 persons - Educational Portal www.gyanpedia.in- Content created by children & teachers from more than 300 govt. school's from 7 states was uploaded. - Pilot deployment of

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				eDhanwanthari (web based telemedicine s/w) at 8 remote centres & 4 specialty centres in Kerala. 186 tele-consultations provided while treating to more than 1000 rural patients. -The mobile telemedicine van has started running at 20 locations at Cherthala taluk, kerala. 2352 patients already treated. This service can be availed by **4.34 lakhs** population of the taluk -Large scale deployment of 'Sehat Saathi' (telemedicine s/w) at Venu Eye Institute & Research Centre, New Delhi and its 6 satellite-vision centres in Uttar Pradesh, Haryana & Uttarakhand. Consultations provided to 210 patients.
	❑ IT related education & livelihood generation projects in North-East.			-ICT in rural schools in Mizoram to another 100 secondary / Sr. secondary schools in the State, Mizoram" is under implementation. The project has benefited 17000 students and teachers in first phase and is targeting 13000 more in second

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				phase.
	❑ Pilot deployment of Integrated Agri Services Program in states.			Discussion for implementation of pilot in Andhra Pradesh and Gujarat is in advance stage.
	❑ Establishment of Community Radio systems in Agricultural sector such as SAU & KVKs etc.			- Installation & Commissioning of CRSs in 5 State Agriculture Universities (SAUs) is complete. - CRSs at Coimbatore and Hisar operationalised -1000 hours of content has been created. -Training to 125 persons imparted to make them radio professionals. -Two National Level Workshops on capacity building for CRS were attended by more than 250 agricultural experts.
	❑ Deployment of ICT tools & e-learning based education system.			-On the basis of user's feedback, finalizing the process to make Intelligent Tutoring System web based and to integrate it with Ontology Building & management tool.
	❑ Deployment of Chic Software			-Training of 500 Weavers and

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	and Setting up of Chanderi Weavers ICT Resource Centre (CWICTRC) at Chanderi, Madhya Pradesh and other places.			youths in Chanderi for skill builder training, Design making, English program & Computer training etc. completed and 500 more weavers have been enrolled. - CAD software tool has been deployed and 80+ traditional weaving designs have been digitized and preserved. In addition more than 125 apparel designs have been made.
	❑ Packaging and Customization of Health Management information System (HMIS).			- The system will cover three Blocks of Tirur Taluk, Mallapuram, Kerala with 7.8 Lakhs population. The Implementation in Vettom Block (35 sub centers) started in July 2009. Training in Valavannur block (55 sub centers) completed in December 2009. All the health-workers, health-inspectors and health-officials trained. Data collection of demographic, Health & family Welfare has been started. 2.75 lakhs persons have already been covered.

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Scheme: STQC **Budget Outlay:** Rs.71.00 crore (Plan) including Rs.7.00 crore for NER & Rs.8.00 crore (Non-Plan) **Objective:** Establishment of Quality Assurance Infrastructure in the country to facilitate quality products & services at par with global standards and practices	1.Up gradation of Test & Calibration facilities to cater to state-of-the-art products with emerging technologies	Allocated budget will be spent for up gradation of test and calibration facility to meet the demand industry.	March, 2010	Rs 1.85 Cr. Out of allocated budget of 4.00 Cr. has been spent for up gradation test & calibration facilities.
	2. Move towards self sufficiency.	Revenue of Rs. 42 crores approx. likely to be generated.	March 2010	Revenue of Rs.31.00 crores has been generated up to Dec., 2009.
	3. Upgrade s/w test facilities for e-Governance application	S/w Test Tools for "Mission critical Project" like defense/space will be procured.	December, 2009	Tools have been procured.
	4. To obtain accreditation of S/w Test lab.	IT Centre (Kolkatta) & IT Centre (Bangalore) to be accredited for Usability Testing from International accredited body.	March, 2010	Activity in progress
	5. Security Standards /guidelines for e-Governance	Security Standards Guidelines documents to be made available to NIC for closed group &	June, 2009	Six draft standards have gone through closed group and public review except one standard has completed closed group review

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		public review.		only.
	6. Progress construction activity of STQC Building at Noida.	Construction activity of first phase to be completed.	Dec., 2009	In progress
	7. Human Resource Development by conducting DOEACC 'O' & 'A' level courses in NE region.	SC/ST/OBC/women / weaker section of society and unemployed youth of NE region will be benefited in Computer field.	March, 2010	In progress
Scheme: Digital DNA Park **Budget Outlay:** Rs.0.01 crore (Plan) **Objective:** To set up Bio-IT Parks to do research & development in the genome and other areas	To establish high performance computing facility	Research in the areas of high performance computing will be performed	By 2012	Setting up of Bio- IT centers in Bangalore is in progress.

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Scheme: e-Governance **Budget Outlay:** Rs.900.00 crore (Plan) including Rs.90.00 crore for NER **Objective:** The NeGP has been formulated for taking a holistic view towards the entire e-Governance initiative across the country and for giving a thrust to e-Governance activities across various arms of government at the national, state and local government level. NeGP uses a programme approach, which is guided by a common vision, strategy and approach to objectives. This approach has the added advantage of enabling huge savings in cost, in terms of sharing	<u>Establishment of SWAN</u> To provide 2 Mbps data connectivity up to Block level in all States /UTs in phases. As Part of the ongoing Scheme both leased line and wireless based network would be created across the country. Implementation activities for SWAN for all 29 States and 6 UTs have been initiated. Facility will be in place either partly or wholly for atleast 15 States/UTs.	Phase wise implementation of network in 29 States & 6 UTs expected.	State Government, would leverage the SWAN as a core network infrastructure progressively to provide G2G services and later G2C services (even below Block Hqrs level when last mile connectivity would be made available) whose availability is presently confined to the location of the offices providing these	Implementation of this Scheme is in full swing. Individual project proposals have been approved for 33 States / UTs so far. The State of Goa and the UT of A&N Islands have implemented Wide Area Network outside the SWAN Scheme. The SWANs in Haryana, Himachal Pradesh, Punjab, Tamil Nadu, Gujarat, Karnataka, Chandigarh, Delhi, Tripura, Puducherry & Lakshadweep have been rolled out. While SWANs in other States/UTs are in various stages of implementation, it is in advanced stage in 10 States/UTs. All the SWANs are expected to be completed by June 2010. To monitor the performance of SWANs, the Department has mandated positioning of Third

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the core and support infrastructure; it enables interoperability through standards, which would result in the citizen having a seamless view of Government. The programme is overseen at the highest level by the Apex Committee headed by the Union Cabinet Secretary.			services any where anytime over the entire State. To be completed by Sept 2009.	Party Auditor (TPA) agencies by the States. As on date, 9 States i.e. Haryana, Himachal Pradesh, Punjab, Gujarat, Karnataka, Kerala, Tripura, Orissa and West Bengal have empanelled the Third Party Auditor (TPA) agencies for the monitoring of the performance of the SWAN in their respective States.
	State Data Centres State Data Centre has been identified as one of the important element of the core infrastructure for supporting e-Governance initiatives of NeGP. The Scheme has been approved by the Government at an total outlay of Rs1623.20 Crore over a period of 5 years. It is proposed to set up Data Centres across 35 different States/UTs in the country during the 11th Plan.	Secure and reliable data Repository sharable across various applications. State Data Centre will help in providing efficient electronic delivery of G2G, G2C and G2B services.	It is expected that around 8 Data Centres shall be set up/ operationalised by March 2010. Thereafter remaining Data Centers (about 23) are expec-ted to be oper-ationalised in a phased manner during the year 2010-11.	i) SDC proposals approved for 31 States. ii) RFPs of 15 States have been approved. RFP of 10 States are under approval. iii) 8 States have completed the bid evaluation , out of which 3 States (Tripura, Gujarat, Maharashtra) have issued the LoI to the Selected Bidder. Orrisa has completed award of contract to the bidder. iv) Bids are under evaluation in 6 States.

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	Common Service Centres (CSCs) The Government has approved a Scheme for establishing 100,000+ CSCs, primarily in rural areas of the country. These Centres would be broadband Internet enabled and would provide all government and private services at the doorstep of the citizen. The Scheme is to be implemented in Public Private Partnership. The Scheme has been approved at a total cost of Rs 5742 crore with Government of India contribution Rs 856 crore and State Governments contribution being Rs 793 crore. The balance funds would be brought in by the private sector. 21,882 CSCs have been rolled out covering fourteen States.	Sanction the CSCs proposals for remaining States and UTs in the country. Complete the process of establishment of 100,000+ CSCs in the country	December 2009	RFP for Karnataka and Punjab issued.
	Successful implementation of the CSC scheme would largely depend upon availability of last mile connectivity i.e. broadband connectivity; up to the village level. Considering the importance, urgency and necessity of implementation of the Last Mile Broadband	Provisioning of broadband connectivity to 100,000+ CSC	March 2010	58,954 CSCs have been rolled out covering 27 States.

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	Connectivity; a two phase plan has been worked out by the Department of IT, GoI in consultation with Department of Telecommunication and BSNL. This is as follows: **Phase –I – Broadband Wire-line connectivity:** This phase would comprise of provision of wire-line Broadband connectivity to those locations where only BSNL has rural exchanges by upgrading capacity of these exchanges. This would provide broadband connectivity to approx. 30000+ CSCs. **Phase –II – Broadband Wire-less connectivity:** This phase would comprise of provisioning of wire-less connectivity by BSNL from Blocks/ Talukas. BSNL would upgrade existing towers with required wireless base stations and also establish new infrastructure where tower is not available. With this provision another 69,000+ CSCs could be provided Broadband connectivity.			As approved by the Empowered Committee for the CSC project, DIT is providing financial support to BSNL for Broadband Connectivity for CSCs. As per BSNL's plan, 29818 CSCs are to be connected by ADSL2+ through rural exchanges out of which 23914 CSCs have been covered. Another about 63,334 CSCSs are to be provided Broadband Connectivity through WIMAX and 2890 CSCs will be connected through EVDO cards. Further about 2500 CSCs in remote areas of the North East are being provided with VSAT based connectivity through NIC.

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	Facilitating Services through CSC by enabling Implementation of State Portal, SSDG, e-Form Application and Gap Infrastructure The scheme of ensuring delivery of services through CSC by enabling the State Portal (SP), State Service Delivery Gateway (SSDG), Electronic form Application implementation and gap infrastructure under NeGP has been approved with a total outlay of Rs. 400 Cr. It is envisaged that SP along with SSDG will be developed and implemented so that citizens are provided with outlets where they can access the services under a single interface mechanism in the form of the Portal. **<u>e-District</u>** e-District as a concept proposes integrated and seamless delivery of citizen services by district administration through automation of workflow, backend digitization, integration and process redesign	To create an integrated information infrastructure that will expand, integrate and enhance utility and reach of services provided by government by utilizing the network of CSCs Implementation of e-District pilot in 14 States (36 Districts) already sanctioned. 2. Obtain financial	March 2010 March 2010 March 2010	Total funds of Rs.101.65 crore released for 28 States/UTs of Himachal Pradesh, Kerala, Puducherry, Tamil Nadu, Arunachal Pradesh, West Bengal, Andaman & Nicobar, Bihar, J&K, Maharashtra, Meghalaya, MP, Punjab, Tripura, Jharkhand, Assam, Orissa, UP, Sikkim, Nagaland, Rajasthan, Haryana, Chandigarh, Karnataka, Goa, Manipur, Gujarat and Uttarakhand. Pilots in 14 States (37 districts) approved. Under implementation: • In UP, Assam and Tamil Nadu: pilot has gone live in all pilot districts. • In MP: Application

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	across participating departments such as Revenue, Food, Basic Education, Social Welfare, Minorities, Forests, Panchayati Raj, Rural Development, Agriculture, Election, Home, Minor Irrigation, Passport, Irrigation, Excise, Finance & Treasuries, Family Welfare, Horticulture, Cooperatives, Transport, Health, Land Records, and Registration etc. for providing services to the citizens.	approvals for the e District Mission Mode Project Scheme		Development is completed. • Bihar, Kerala, West Bengal: Application development is under progress • Jharkhand, Maharashtra, Mizoram and Orissa: Application Development Agency is appointed • Punjab, Uttarakhand and Haryana: Process for selection of system integrator is underway • DIT is in the process of National rollout of e-District project for which EFC note is under preparation
	<u>e-Bharat</u> To support NeGP, GoI has been carrying out a dialogue with World Bank for possible programme management and financial support (called "e-Bharat project"). The proposed World Bank support is expected to finance an agreed-upon subset of those NeGP activities (MMPs and program Components) which are most directly related to the objectives of the Bank's Country	Ensure improved service levels under the selected MMP, accessible to the common man in his locality, through an integrated service delivery mechanism at affordable costs. Create contemporary	Appraisal by September 2009. Financial sanction & initiation of implementation of Projects under e Bharat by December	Following GoI's decision not to establish a dedicated SPV (i.e. National e-Governance Agency), the Bank advocated a newer look to be adopted inter-alia suggesting termination of the preparation of "e-Bharat" Project. In view of significant efforts including sizable resources put in by DIT/other Line Ministries and

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	Assistance Strategy (CAS), after these have received Cabinet approval. The Bank has as part of its preparatory activities, undertaken several missions in the past, the last one during February 2008. The Bank reported good progress achieved in advancing preparation of e-Bharat project including preparation of NeGP/e-Bharat Program Management and Financial Manuals, formulation of Detailed Project Reports that could serve as the basis for appraisal as well as finalization of Core Scope Guidelines for the eligible projects. Discussions are at an advanced stage with the DEA and the World Bank to finalize the size and scope of the project. This support is expected to be in the form of a Specific Investment Loan (SIL) spread over a four year period. **<u>Capacity Building</u>** To realize the NeGP vision, 27 Central, State and Integrated Mission Mode Project (MMPs) along with 8 support components have been identified in NeGP. The focus has	infrastructure for the selected MMPs that provides transparent and effective interaction between the Government and Common man (in the rural and urban setting) & businesses ensuring economic growth.	2009.	participating States for timely completion of project preparation activities, DIT reemphasized its keenness to carry forward the "e-Bharat" initiatives after confirmation on two basic issues, namely "programme framework" design approach and an in-principle commitment from the Bank for US$ 300 million, as was being contemplated before. Following DIT's suggestion, discussions with the Bank are currently under way, to explore and agree on a revised framework and modalities for the project to get functional.

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	been service delivery to citizens. Capacity Building is one of the important components of NeGP for establishing internal capacity with in the Government framework essentially at the State level. Institutional Capacity Building in 28 States and 7 UTs			
	1. Creation of SeMT for various States/UTs	Setting up of SeMT in States/UTs	June 2009	i) 22 States/UTs have already set up SeMT through empanelled agencies ii) 10 States/UTs are under process for setting up SeMT through empanelled agencies
	2. Orientation/Training of SeMT & Policy Makers in Phases	Delivery of training to Sr. officials, policy maker & SeMT	Continuing activity	Specialized Training Phase-II at project level Guidelines has been issued to all States/UTs .
	3. Preparation of DPR by Sates/UTs	Preparation of MMP DPR	Continuing activity	Training/Orientation ”e-Governance Leadership Meet” for policy and decision makers has been conducted for the State of Meghalaya, Sikkim, Manipur, Nagaland and Orissa

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	4. Strengthening of Training Institute in States	Fulfill the training requirement	Continuing activity	Continuing activities
	Horizontal Transfer of Successful e-Governance initiatives			
	On going projects in Land Record, Property Registration and Technical Assistance for Rolling out.	-Pilot for providing citizen services	Continuing activity	Application software development work for the projects Land Record and Registration in the State of Meghalaya has been completed and testing is being done
	GIS/GPS Application			
	Initiation of New project	Developing spatial decision support system	May 2009	Spatial Decision Support System for Land Resource Management project in Manipur is likely to be completed
	Completion of ongoing activities		January 2010	
	Standards for e-Governance			
	Development and enhancement of Standards, Guideline, Policy in identified areas of concern Development of standards in the new areas Publishing of standards on the website	Ensure Interope-rability, integration & seamless data sharing of e-Gov applications Release of standards/ guidelines in Interoperability, Data	April'09 onwards–	• Portal for publishing and collaboration on standards has been developed (http://egovstandards.gov.in) • Meta data and Data standards for person identification and land region codification and Localization standards

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		& Metadata, Security, Localization, Quality & other new areas that emerge		(Unicode 5.1 and Open Font Format) have been notified. • Draft Interoperability Framework for e-Governance applications are under preparation. • 6 draft guidelines on Security are being finalised after the public review by the Expert Committee for approval by Apex Body in January 2010. • Conformity Assessment Framework guidelines have been prepared for ensuring quality. • The Task Force on the eForms has prepared two reports on the Policy and Roadmap. • Standards for Facial image and fingerprint image are under preparation by the Expert Committee.
	India Portal Content Enhancement ISO Certification Promotion of Portal	Seamless search of govt. information available at the central & state levels and will facilitate Single sign-on to various govt.	On-going	• **ISO Certification** - awarded with ISO Certification. • The Hindi and English version of the Portal made compliant to the W3C Web Accessibility guidelines for disabled

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		services and information in turn making citizen interface much simpler & easy.		• NGO Partnership System (NGO-PS) – Developed as a part of the India Portal project for the Planning Commission. NGO signup has increased to 5200+ and is increasing at a pace of 100+ per day. • **Complain & Appeal Module for Central Information Commission(CIC)** - The online, workflow and administration module of the software has been working. Automated documentation functionality has been incorporated and various MIS reports are being regularly taken out. • **Content Enhancement** – In various sections like Business, Industry and Services, Infrastructure, Doing Business Abroad, Government Tenders, Citizen Section have been done • **Institutionalization of Web Ratna Awards -** The nominations have been opened as received from Government Ministries/Departments/States/

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				Offices for exemplary e-governance initiatives for 6 categories of Web Ratna Awards. • **Accolades** – Received Award for "Government to Citizen Initiative of the Year" in e-Government track of eIndia 2009 Conference at Hyderabad.
	National e-Governance Service Delivery Gateway (NSDG) NSDG is a middleware infrastructure, would act as standards based routing and a message switch de-linking the back end departments from the Front-end service access providers. This would facilitate standards based interoperability and integration to existing and new e-governance applications. A pilot implementation has been successful developed and tested. The National Gateway is implemented by CDAC and is Live since Aug'08 • Operations & Maintenance for 5 years • To be plugged into various e-Gov projects	This soft infrastructure which is based on standards will facilitate integration, interoperability & data sharing amongst various e-Gov application.	Launching in July 2009	• NSDG specifications (IIP, IIS, IGIS) finalized • Integration of MCA 21 with NSDG completed. • Integration with other e-governance Project like PAN and Trademark database, eBiz, India Portal, State applications, etc. underway • Various Technical Monitoring Committee (TMC) meetings held to resolve technical issues • Program Management Structure for NSDG approved at DIT. • NSDG PoC for Application Performance Management conducted • Proof-of-Concept on e-Form submission via NSDG

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				demonstrated successfully at the Round Table Conference held at Manesar on 29th Jul'09. • Several deliverables like Software Requirement Specification (SRS), Performance Test Plan, User Manuals prepared • Draft guidelines for applications requiring to send messages beyond 2MB through the Gateway drafted.
	Conformity Assessment Centre DIT, under this project, is creating 7 IT centers (region-wise) in terms of skills, knowledge and experience with technical in the areas of Information Security, Software Quality, IT Service Quality etc. These centers will provide Audit, Compliance and Certification Services to various e-Governance applications. The project is being executed by STQC. • Continuation of service provisioning to various eGov Project at Centre and State Levels • Release of Conformity Assessment	Will help to scale up e-Gov Implementations in India and generate confidence	On-going	• Quality assurance framework for e-Governance prepared • Assessments of various MMPs completed like: MCA 21, Commercial Tax of Madhya Pradesh, NSDG, Excise Tax of Government of Maharashtra, CRIS Indian Railways, etc

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	framework and the Quality Assurance framework • Organizing three to four workshop on Quality eGovernance **R&D in e-Governance**			
	To have the gateway & Portal development in various platforms which will bring direct benefit to the State Gateways and State Portals	To facilitate single window access to various government services	April'09 onwards	The Consortium Mode Projects in language technology continued to be supported and the Alpha versions of following systems have been developed:
	To develop various tools for better citizen service delivery	To enable the seamless interoperability and exchange of data across the various eGovernance applications under NeGP		1) English to Indian Languages Machine Translation (5 language pairs viz. Eng-Bengali; Eng-Urdu; Eng –Hindi; Eng- Malayalam; Eng-Marathi) 2) Indian Language to Indian Language Machine Translation (6 language pairs viz. Punjabi-Hindi, Hindi-Punjabi, Urdu-Hindi, Hindi-Telugu, Tamil-Hindi, Telugu – Tamil)
	To develop shared services on the gateway			3) Cross-lingual information access (4 language pairs; viz. Eng-Hindi, Eng- Marathi, Eng- Tamil,

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				Eng- Bengali) 4) Optical character recognition in major Indian languages 5) On-line handwriting recognition systems
	Open Technology Centre (OTC) GOI has initiated the setting up of an Open Technology Center through NIC aimed at giving effective direction to the country on Open Technology in the areas of Open Source Solutions, Open Standard, Open Processes, Open Hardware specifications and Open Course-ware. The OTC will provide the requisite support to the Standardization activity for e-Governance. • To provide synergy to the overall components of Open Technology initiative that are being taken by various communities • To strengthen the support on the Open Technology • To provide the requisite support to the Standardization activity for e-Governance.	• OTC to form Help-Desk Mechanism for NeGP on Prioritized Open Source Stack • Support for hand holding services for using Open Source Software in e-Governance Project • Help to launch 1 e-Gov Portals / Applications which are compliant with Web Accessibility Standards • A Document and Reference for migration/porting of legacy applications to	April'09 – March'10	• **X-Forms Technology –** The usability of X-Forms technology demonstrated in few e-Governance applications. • **Adaptation of Component Based Application Development -** OTC facilitates the usage of Component Application Development in e-Governance projects by developing components and conducting workshops. • Replication and Data Consolidation • The data replication and consolidation from any database to any database was carried out for Transport Project, Municipalities Project and Land Record Projects of Tamil Nadu State.

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		Open Technology • A Handbook on "Open Technology" • Coordination with Six Technology Standards Expert Committees to prepare & update reports on the identified area • A Document on Guidelines to select matured libraries and tools, in consultation with various stakeholders, for Open Source Solutions, which are to be used in e-Governance Applications • Conformance Lab for Compliance with prioritized Open Technology Standards for e-Governance • Augmenting additional man-		• Legacy Application migration to Open Source Software – The migration of the Office Procedure Automation (OPA) has been done from Legacy Database to Open Source Database • Training Programs conducted on Object Oriented PHP, Java MVC Frame Work: Wicket Training for PDS team, Software Development Environment Tool: Fuse Forge, etc. • **Cloud Computing** – The initiatives have been taken to study the suitability of Cloud Computing for e-Governance applications.

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		power of about 5 Trained NIC-Experts and about 25 Research Scientists		
	Establishment of BOSS Support Centres and Business Development (NRCFOSS) • Setting up of support centre in academic institutions • National campaign and state-wise campaigns. • Certification programme for BOSS linux (Server & Desktop)	• Setting up of remaining 25 BOSS Support Centers and mirror sites for faster downloading of FOSS tools • Training and deployment of remaining support personnel in BOSS Support Centers • Business Promotion & vendor development • Further development and enhancement of BOSS Linux • A "Self Supporting	April'09 – March'10	As a result of efforts put in by the project team, several states like Delhi, West Bengal, Kerala, Tripura, Gujarat, Uttarakhand, Pondicherry, J&K have shown interest for adoption of BOSS. Demo/ installations of BOSS (around 2000) have been done in 90 academic organizations. As part of MOU with Indian Navy for deployment of BOSS in office applications, 500+ installations have been made and 300+ officials have been trained across Navy locations. • National Help desk facility

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		Business Model" for BOSS Support Centres for self sustainability and expansion of operations.		setup in Chennai • MOU signed with National Informatics Centre(NIC) for deployment of BOSS Linux across the country in e-Governance applications. • Implementation on in Kerala in 101 villages across Palakkad and Thrissur districts (application DC Suite). Currently in 3 taluks BOSS Linux has been installed in around 120 systems running taluksuit on BOSS Linux. • Government of Punjab has issued order for deployment of BOSS Linux in 46000 desktops spread across 4965 schools in Punjab under Sarva Shiksha Abhiyan programme. Installations and training/ workshops initiated. BOSS user manuals developed in Punjabi. • MOU signed with CHiPS (Chhattisgarh Infotech & Biotech Promotion Society) – nodal agency for Government of Chhattisgarh – for deployment of BOSS Linux across the state. BOSS Linux

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				currently deployed in their CHOICE (Chhattisgarh Online Information System for Citizen Empowerment) project. 450+ officials trained on BOSS across Chattisgarh. Several new CHOICE services implemented on BOSS. • **BOSS Linux workshop titled "Open Source *demystified*"** was conducted in major cities across the country including Bangalore, NOIDA, Mohali, Kolkata, Hyderabad, New Delhi, Mumbai and Chennai • **A TV commercial on BOSS Linux desktop edition** has been produced. The commercial currently in English, Tamil & Hindi languages would also be produced in other regional languages with different time slices and planned to be launched across major TV channels for promotion of BOSS Linux.

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	<u>Assessment</u> This programme is basically the Impact Assessment Studies of e-Governance projects and the e-Readiness survey of India. The Department of Information Technology carried out an exercise of Summary Assessment of selected e-Government projects in the year. The assessment was carried out for 39 such projects across the country. The projects were assessed on the assessment framework EAF 2.0, designed jointly by NISG & IIM, Ahmedabad. **<u>Awareness & Communication</u>** National Awareness Campaign for NeGP • To build distinctive brand of NeGP which be utilized across Departmental communications • To create awareness among citizens about the initiative & its objectives • To motivate stakeholders, with an	The summary Assessment exercise will be moved to the next level i.e. assessing the impact of projects on the target audience by selecting appropriate agencies that can carry out non-technical social impact assessment studies. As part of the strategy, it is proposed that while the NeGP umbrella campaign will be designed and run by the DIT, the respective MMPs and Components will be free to run their respective awareness	2009-10 March 2010	• Impact Assessment of JNNURM e-governance projects completed in 4 municipalities – Kolkata, Mumbai, Delhi and Hyderabad. • Impact Assessment of Commercial Tax project ongoing in 10 states – Assam, Sikkim, UP, Delhi, West Bengal, Rajasthan, Gujarat, Andhra Pradesh, Tamil Nadu and Chhattisgarh Workshops and Conferences • National Level Workshops o Creative/collateral support towards facilitating NeGP awareness was provided to the Round Table Conference held in Manesar, • 1st Conference of ICT Ministers was held in October 2009

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	emphasis on the point that NeGP is not about computerization or technology but making interaction with government easier	campaigns. However, the MMPs will be required to carry the logo and tagline of NeGP to convey the over-arching picture and a sense of continuity between the various MMPs and Components. To create a demand driven atmosphere which would ensure the service delivery & its quality are met It is proposed to initiate/ support the following activities: Create awareness at the national level through a campaign on various aspects/components of NeGP in India Educate the common man on the vast potential of e-gov and encourage him to avail		• State Level Workshops organized in 2 States o Gujarat- 25th June, 2009 o Madhya Pradesh- 7th May, 2009 3 Zonal Level Workshops organized in Madhya Pradesh o Bhopal- 6th April, 2009 o Rewa - 13th April, 2009 o Gwalior- 21st April, 2009 • Workshops organized with external parties o e-India Conference, Hyderabad o ASSOCHAM e-Governance Summit, Delhi o Manthan Awards, New Delhi Brand Building- • Branding DIT stationary with NeGP logo initiated. • Internal communication efforts within the Department initiated • A short film on CSCs produced. • An NeGP information film was subtitled in English to facilitate wider reach/propagation.

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		the benefits of the same. To promote e-governance among top level political and bureaucratic setup and other sectors like industry, academia, and media Encourage adoption of change management practices in the government setting especially with middle level functionaries		• NeGP informational posters were dispatched to Govt Officials/ e-Gov implementers.
Scheme: Cyber Security (incl. CERT-In, IT Act) **Budget Outlay:** Rs.33.00 crore (Plan) **Objective:** • Security Policy, compliance & assurance	• Improvement in security posture of organisations and enhancement in the ability of IT systems and networks to resist cyber attacks.	• Implementation of Security Best Practices – ISO 27001 in Govt. & critical sector	• Ongoing	Govt. and critical sector organizations are implementing the secutity best practices in accordance with ISO 27001 standard and as per the advice issued by CERT-In. Services of CERT-In empanelled . IT security auditors are being used to verify compliance.

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		• Implementation of cyber security Crisis Management Plan (CMP) in Central Govt. Ministries/Deptt. as well as States/UT	• Ongoing	Crisis Management Plan has been released for countering cyber terrorism. Cyber security drills to assess preparedness of organisations to withstand cyber attacks are planned. First cyber security mock drill was conducted in November 2009.
		• Cyber Security conformity Asses-sment Infrastructure (Product, Process & People)	• Ongoing	Eighty auditors were empanelled for audit of IT infrastructure from cyber security point of view..
		• Establishment of Common Criteria (CC) product testing facility and certification scheme.	• Ongoing	CC lab accreditation process is complete. The test facility is able to conduct tests up to level 2.
• Security training – basic awareness as well as advanced	• Trained manpower to implement techniques to secure IT infrastructure.	• Specific training facilities, training modules and content development	• Ongoing	Conducted fifteen training programmes on Critical Information Infrastructure Resiliency, Wireless Security, Windows Security, Current Trends in Web Application Security, Identity & Access management, Threat Infiltration & Mitigation,
	• Trained manpower to collect,	• Awareness and training	• Ongoing	

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	analyse and process digital evidence. Pre trained manpower will help in securing cyber space and check cyber crimes.	programmes to facilitate information sharing to deal with crisis situations.		Computer Forensics and Advanced Web Application Security. Officials from central & state government Ministries/Departments/ Govt. of Union Territories, PSUs, ISPs Banking/Financial, Judicial/Law enforcement and Critical sector organizations participated.
• Security R&D for indigenous skills & capabilities	• Development /enhancement of skills and expertise in areas of cyber security	Research and development of indigenous cyber security solutions, proof of concepts and prototypes and skilled manpower in areas of cyber security including • Crypto Analysis & Research • Authentication • Network & System Security - Mobile • Monitoring & Forensics • Vulnerability through sponsored projects at recognized	• Formulation & evaluation of proposals by Working Group	Working Group was reconstituted for a period of two years with experts from Academic/ R&D organisations, Govt and user organisations to provide advisory support for implementation of R&D programme. R&D proposals were formulated in the areas of (i) face recognition system for unconstrained environment, (ii) person identification system based on speaker verification,(iii) detection of SQL Injection vulnerability in web applications, (iv) Analyzing Online Content Using Data Mining Techniques to Counter Cyber Crime, (v) Development of Integrated

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		R&D organisations.		Security RiskManagement System for an Enterprise Network, (vi) Study of FISMA Model and suggest an appropriate framework for applying it with Govt of India, (vii) Establishment of Computer Forensic Lab and training facility in the North-East region and (viii) biometric system development.
			• Periodic review of individual projects	Twenty nine on-going projects were reviewed by the respective Project Review and Steering Committee (PRSG) of the on-going projects and follow up actions have been taken.
• Security incident – early warning and response (CERT-In)	• Enhancing the security of communications and information infrastructure in the country	• Rapid response, resolution and recovery • Security incident prediction, prevention and protection • Security assurance	• Continuous upgradation of CERT-In facilities and capabilities	Threat Assessment and Attack Detection Solution at ISP Level to facilitate early detection of malicious activities and attacks in Indian networks is functional partially and efforts are in progress to enhance the solution. Project for Augmentation of CERT-In facilities including Vulnerability Assessment & Penetration testing Lab and Artifact Analysis Lab is under process. Process initiated to

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				install a multi-purpose threat mitigation hardware.
			• Realtime Malware tracking and analysis	Tracking of vulnerabilities in Operating systems, Applications such as Web/Database/Mail and Network devices is ongoing.
			• Real time response to cyber security incidents	Security Incident Response- Around 6828 security incidents resolved. 5639 Indian website defacements tracked. Incident Response and Advice for prevention provided to affected organisations. 2149 open proxy servers in India were tracked and actions were taken to mitigate the same. Around 2611087 Bot infected systems and 24 Command & Control servers were tracked in India.
			• Alerts, Adv-isories and vulnerability	21 Security alert/ incident notes issued.

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			Notes	44 Security Advisories issued.
			• Cyber Security Mock drills	117 Security Vulnerability notes issued.
			• Cyber Forensics	Security Bulletins covering various cyber security issues, intrusion trends and defence mechanisms are being published every month.
• Cyber laws for supporting E-Commerce and E-Governance activities	• A legal framework, which will instill confidence of the users and investors in the area of Information Technology in the country will be in place.	• Creation of a Legal Framework that can effectively support growth of E-Commerce and E-Governance in the country.	• Ongoing	Information Technology (Amendment) Act 2008 has been enforced on 27.10.2009 and rules for important sections were also notified.
		• Establishment, operation and maintenance of CRAT.	• Ongoing	• Amendments were enforced for composition of Cyber Appellate Tribunal from a single member body to 3 members body. Adjudicating officers are functioning in all states. Awareness is being created in respect of functioning of Tribunal in the states.

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Scheme: Promotion of Electronics / IT Hardware Manufacturing **Budget Outlay:** Rs.2.30 crore (Plan) **Objective:** Promotion of Hardware Manufacturing in the country.	Supporting the setting up of Semiconductor Fabrication and other micro and nanotechnology manufacture industries in India under Special Incentive Package Scheme (SIPS). Conducting Studies and preparation of Position Papers related to promotion of Electronics/IT Hardware manufacturing and relocation of manufacturing industries from advanced countries.	This would encourage investment in electronics/IT hardware manufacturing sector	March 2010	**Status of SIPS** In 2009, DIT has issued "In-Principle" approvals to 13 Solar Photovoltaic applicants. Applicants were requested to precipitate Financial Closure by 15.12.09 and approach DIT for further processing. 5 Applicants have reported Financial Closure for amount exceeding Rs. 1000 crore. These applications are being further processed. **Studies and preparation of Position Papers** 2 proposals have been received from Electronics Industry Associations seeking financial assistance for carrying out studies in the area of Electronics Hardware and Design. Certain revisions have been suggested in these proposals regarding scope/time-lines of the studies. Further action would be taken on receipt of the same.

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Scheme: Manpower Development **Budget Outlay:** Rs.45.00 crore (Plan) **Objective:**				
E-learning	Development of Open source content delivery tools with advanced features - Web application source code in different packages, documentations made available in open source.	This will be useful for content management and delivery	Nov., 2009	Under Brihaspati-2, which is an open source, free Learning Management System (LMS), the latest release is being updated from time to time on sourceforge.net by adding new components. The sourcecode can be downloaded from sourceforge.net. So far 35 activities/ tasks have been completed. The Project has been completed.
	Design and Development of e-learning contents for e-security solution developers - e-Learning Contents for e-security solution developers would be designed developed and deployed on the server of C-DAC, Noida and training would be imparted/ available in the e-learning mode.	Student/ Officers/ executives/ system Administrators of State and central Govt. would be trained for developing e-security solutions. The appropriate manpower would become available in the area. Thus, the networks and the	August, 2009	The e-security contents for all 3 categories has been developed and hosted on CDAC, Noida/ DOEACC websites. Imparting of training is being continuing through e-learning mode to the first category of about 1000 users. Approximately 200 users from the 2nd and 3rd category have also registered themselves for online

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		systems would be further secured.		training in the e-security area. The project has been completed.
	Training of Teachers in E – Learning by DOEACC Society - Imphal, Centre- 120 teachers would be trained under this proposal by DOEACC Centre at Imphal. They shall be able to locate and use/ reuse the course content in e-learning in their area of specialization.	The project would lead to proliferation of E-Learning in the country.	June 2009	A Computer laboratory for training of students in e-learning has been set up at DOEACC Imphal Centre. The centre has trained 121 teachers, belonging to colleges and schools, in e-learning methodology of teaching and content development. The project has been completed.
	National Competitiveness in Knowledge Economy, IIT, Roorkee. • Report incorporating recommendations for use by the Government as input for making necessary policies and programmes for the knowledge economy • A template for collaborative and cooperative synergy amongst Industry-Academia-Government Society for realizing knowledge economy • Report identifying new streams/ disciplines for the emerging knowledge economy etc	The Government will be better informed for focusing on policies and programs for the future suited to emerging knowledge economy	January 2010	All project components like conducting of Symposium, International Conferences, Seminars, Workshops, Brainstorming Sessions, Competitions, Commissioned Research and Consultancies etc. are progressing well.

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	Fresh project proposals for E-Learning in the area like development of authoring tools, Video Compression/ decompression techniques, developing content independent of Platform and environment, Personalized Learning and content management system etc. have been received from various academic institutions, R&D labs etc. These projects will be placed before Working Group for deliberations/ recommendations before approval by the competent authority.			The Working Group meeting on E-Learning R&D Projects was held in Sep. 2009 in which out of 12 new Project proposals, 9 project proposals were recommended by Working Group of which 3 will be financially supported by DIT and another 6 would be financially supported by MHRD under National Mission on Education through Information and Communication Technology (NMEICT).
Human Resource Development in the country in the area of Information Security.	• Launching/ continuation of Information Security Curriculum at B.Tech/ M.Tech/ Ph.D levels and train System Administrators; • Installation/ commissioning of Information Security labs at RCs and PIs; • Training faculty of Participating Institutes; • Train Central and State Government Officers; and	Generate qualified IT security professionals for Industry/ Govt. Human Resource Development and awareness in the area of Information Security. Secured environment for BPO, Commerce and governance	March 2011	*Academic Activities:* • The RCs/PIs have launched academic courses on Information Security at doctoral to short-term level; So far around 25,000 students have been trained/ undergoing training in various long-term/ short-term courses at RCs/PIs. • Four (04) Faculty training programmes for PIs organized through TIFR & IISc. • MOU signed with TIFR, Mumbai as 6th RC. • Information Security Labs set

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	• Awareness Programmes in the area of Information Security.			up at all the RCs and PIs. • Schemes for Travel Fellowship for attending conferences, paper presentation, short-term courses, workshops, tutorials etc. for students and faculty of RCs/PIs, and Revised Ph.D Scholarship/Fellowship for students of RCs/PIs evolved and launched. *Government Officer Training:* • Organized training of sixty (60) Master Trainers through IISc. Bangalore at ISTM, Delhi, IISc., Bangalore & CMU, USA. • Various Training Programmes for Government Officers are being conducted by six (6) Implementing Agencies. • A modular courseware on Information Security (10 Modules) for short duration training programmes has been designed/developed and tested by C-DAC Hyderabad with e-learning tool (e-Sikshak). *Information Security Awareness:* • Implemented through CDAC

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				Hyderabad • So far 50 workshops have been organized across the country covering about 2400 Teachers/ Parents/ CSC/ NGOs, etc., and about 8200 school children/ college students. • During these workshops, around 5600 Awareness Kits (with promotional material and Hand Books) were distributed. • 25 posters on various topics of Information Security Awareness were designed and around 10,000 posters were distributed to target users. • A dedicated website for information security awareness (http://www.infosecawareness.in - beta version) has been developed. • Course material like guidelines for XP, Linux, wireless configurations developed. • Security e-Books developed (Security Guidebook, Security Tool Kit, Children Hand Book, Guidebook for Teachers and Parents) and made available on the web site - 415 downloads so

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				far. *Certification Scheme for Information Systems Security Professionals:* • A national level certification scheme for Information Systems Security professionals evolved with DOEACC Gorakhpur. • The scheme consists of three levels and the detailed syllabus and Practical Assignments for Level 1 and broad syllabus for other two levels finalized. • Level-1 of the Scheme viz. *Certified System Security Analyst (CSSA)* has been launched by DOEACC Society. The course is scheduled to commence from four centres of DOEACC Society viz. Gorakhpur, Imphal, Kolkata and Jammu/Srinagar w.e.f. July 2010.
New scheme of manpower development for the software export industry: To create course contents; Train Mentors;	• Creation of course curriculum, Contents and Question Bank; • Generation of quality faculty and Mentor	Human Resource Development in the area of Information Technology for soft-ware export industry	March 2011	• Various projects under the scheme are being implemented at C-DAC-Pune, C-DAC-Noida, C-DAC-Hyderabad, IIIT-Allahabad, IIITM-Gwalior,

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generate uality faculties and produce skilled employable graduates in the area of Information Technology.	• Upgrading skill to graduates to make employable. • Augmenting the existing infrastructure facilities for ICT training to enhance the intake capacity • Expansion of the state-of-the art facility for advanced (industry related) IT training programmes	Generation of Mentors /quality Faculty by conducting specialized short term courses in IT/ITES sector Enhancement of quality of ICT education in Engg. Colleges Virtualization of Tech-nical Education in IT Setting up of National On-line Test System for Graduate Engineers in Information Technology		IIIT-Bangalore, IIIT-Hyderabad, State Government of Tamil Nadu, and UP Technical University. • Necessary training infrastructure like setting up of lab etc. has been created at IIIT-Allahabad, IIITM-Gwalior, CDAC-Pune, IIIT-Bangalore and CDAC-Hyderabad. The construction for training infrastructure is in progress at IIIT-Hyderabad. • Various ICT training programme are being conducted in the area of Information System & Cyber Security, Geo-informatics, Language Computing, System Software Design, Application Software, VLSI Design, Embedded System Design, Wireless & Mobile Computing, Multimedia Creation, Advanced Computing, Management skills, Personality development, IT Outsourcing, e-Contents development, Data Structure, Software

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				Development, Faculty Updation Programme in various areas. So far, 5309 students/ faculty have been trained/ undergoing training. • The first phase of development of 'Online Examination Software' has been completed. The testing of this software is in progress. The first online examination on this platform was conducted on 11-12 July 2009 for entrance of students for Post Graduate Diploma (PGD) programs of C-DAC, Noida, where 400 students appeared in 4 slots for 2 days. Another exam was conducted in September 2009 for 200 students for PG Courses. • Summer school courses were conducted on e-Healthcare, Experts Systems Applications & Global Banking and Finance in e-World. International seminar on Empowering visually impaired through ICT and a

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				workshop on Content development in Advertisement and Brand Management through IT Tools were conducted. Training has been conducted for teachers/research scholars/professionals in the areas of GIS, Expert Systems, e-Healthcare, Global Banking, e-Content development & delivery and Advertisement & Brand Management. Also conducted training for farmers/Knowledge Workers in the area of Tele Agriculture, Tele Education, Tele Medicine, Land & Water Resource advisories, e-Governance services & Weather advisories. • UP Technical University, Lucknow has identified Nodal Centers in Uttar Pradesh and in Uttrakhand. The necessary infrastructure has been setup at these Nodal Centers. The first trial of dissemination of grid based virtualization of technical education has been completed successfully between

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				the offices of UPTU at Lucknow and Noida. Establishing the network and testing is in progress. • In addition the following projects have been initiated: • 'Setting up of ICT Academy Kerala (ICTACK)' with the primary objective to train faculties in Engineering, Arts, Science, Polytechnic and ITI's and support roll out of mass based HR programme for graduates. Action has been initiated for implementing the project by the State Government. • 'IT Enabled Soft Skill Enhancement Training Programme to Improve Employability of Engineering and Management Students' by Anna Universities of Coimbatore and Chennai.

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Human Resource Development in the North-Eastern Region	▪ Regional Institutes for e-Learning and Information Technology (RIELIT) at Kohima (Nagaland) and Agartala (Tripura) ▪ New DOEACC Centres at Shillong (Meghalaya) and in other locations	Create skilled manpower in the area of Computer Science and Information Technology and related disciplines for making available industry ready professionals and also cater to the needs of the respective state and the region as a whole.	March 2010 (RIELIT Kohima) March 2012 (RIELIT Tripura) Dec 2012 (DOEACC Shillong)	• RIELIT Kohima, Nagaland is conducting DOEACC 'O' & 'A' level (IT) and Hardware, CCC, BCA and other short-term courses. So far 1802 students have been trained at temporary RIELIT center at Kohima and at Extension Center of RIELIT at Chuchuimlang, Nagaland. The construction of the main campus at Merima is in progress. The Academy Block, Administrative Block, Girls Hostel have been constructed. The remaining construction work at permanent RIELIT campus is under progress. Shifting of training activities from temporary site to the permanent RIELIT campus, Merima has been initiated. • RIELIT, Agartala, Tripura is conducting training programmes such as DOEACC (IT) 'O' & 'A' level, DOEACC CHM 'O' & 'A' level and ITES-BPO from temporary accommodation provided by the State Govt of Tripura since

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				December 2008. A total of 125 candidates have been enrolled in various courses. Admission procedures for second batch (Jan 2010) have been initiated for enrolling about 150 candidates. Land for setting up of the permanent campus has been taken over from the State Government and fencing of the site is completed. Action to finalize Project Management Consultant (PMC) has been initiated. • DOEACC Centre, Shillong has started short-term training courses from rented premises covering 6000 sq. ft. since December 2009. So far 19 trainees have undergone ITES training. Initiated admission process for DOEACC 'O' & 'A' level (IT) and Hardware courses for 100 trainees in January-February 2010 session. • Setting up of a DOEACC Center at Gangtok, Sikkim has been initiated. Action regarding

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				renovation of the rented premise for setting up of class rooms/ labs, hiring of faculties, etc., have been initiated.
Setting up of ICT Vocational Centers for physically challenged children Phase II To provide computer literacy, skill development and to impart job oriented training to blind, low vision and deaf & dumb children.	The equipment available for ICT enablement includes Talking software, Screen Magnification, Talking Typing Teacher and Braille Embosser, OCR and Scanner, CC TV Print Magnifier device with TV for blind, and Assertive Listening Device and Hearing Amplification device for deaf. LAN & Internet connectivity is also provided.	The project will help differently abled children to acquire ICT skills enabling them to seek employment and earn livelihood.	About 40 centres in different states are planned by March 2010.	• Approved recently to set up a DOEACC Center at Gangtok, Sikkim. 50 Centres have been identified in different States/UTs and equipment procurement process has been initiated.
Implementation of Internationalized Domain Names (IDN) Implementation of Internation-alized Domain Names in Indian Languages under .IN Registry	Internationalized Domain Names in Hindi, Marathi, Bangla, Assamese, Tamil, Malayalam, Urdu, Telugu & Kannada Languages to be launched	Increase in the number of internet users Hosting of larger number of local language websites, Potential development of search engines in Indian languages and Overall increase in the number of users on the internet.	Ongoing activity Work on creation of language character tables for Gujarati, Punjabi, Oriya, Telugu and Kannada under finalization. Validation and	The IDN ccTLD for several languages viz. Hindi, Bangla, Tamil, Punjabi, Urdu, Telugu & Gujarati is under process for launch by June, 2010.

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			identification of the .IN Registry as the agency mandated for IDN ccTLDs in Indian Languages under process.	
Quality of Service Nationwide Network Testbed Establishing countrywide Quality of Service (QoS) networks for IT based applications and services.	Establishment of architecture, bandwidth protocols best suited for assured Quality of Service (QoS) for Applications viz, Distance Education, Voice over IP and Videoconferencing	Establishment of a set of Standards, protocols for QoS assured networks for IP based applications and services namely, Distance Education, Voice over IP and Videoconferencing	Project closure under process QoS guaranteed network architecture established for testbed network and Project objective of demonstrating remote classroom included for project completion in March 2009.	Project completed. MPLS network testbed established in the ERNET backbone.

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Governmental Advisory Committee (GAC) Secretariat Activities To provide and maintain GAC infrastructure such as website and mailing servers.	The GAC Secretariat is established in DIT, India and the website www.gac.icann.org is Operational. Supports in Policies for ccTLD Registries; WHOIS and personal data; Generic Top Level Domains (new registry services, creation of new TLDs etc.); DNS Root Server system and DNS Security, etc.	The GAC Secretariat would help provide capacity building & outreach functions on public-policy issues on Internet proliferation.	Ongoing activity	The Secretariat is functional satisfactorily.
Connecting ERNET India with European Research network GEANT To facilitate direct connection between the two region to support current and potential cooperative research activities	To set up more collaborative research networks with reputed academia and research institutions of other EU countries.	Ongoing activity. The ERNET-GEANT link has been upgraded to 100 Mbps to meet the increased requirements of Indian Scientists. The bandwidth will be raised to 1Gbps after demand analysis. Collaborative research by scientists and experts of participating academia and R&D communities in real-time R&D environment.	Project has been extended for one year i.e upto March 2010.	The ERNET-GEANT link has been upgraded to 175 Mbps to meet the increased requirements of Indian Scientists.

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Internet Governance Forum (IGF)				
Representing the concerns and requirements of India in the Forum meets	Setting up of an IGF India Chapter India's position on the concerns of Internet and its Governance to be highlighted through active participation of all stakeholders in workshops, meetings and exhibition.	Generation of Awareness on Internet Governance and Policy issues among the citizens of India and promoting their active participation at global meets.	Annual workshops and seminars in the five-year plan.	The activities on awareness/ training and workshops have been organized in collaboration with industry associations and civil society on the issues of access, security, multilingualism of Internet and other IGF issues.
R&D for development of self managed networks				
To carry out research in the area of network measurement & QoS and to develop Self-managed solution	Development & demonstration on a network testbed • Software Self Managed System • Self Managed Appliance • International Research Publications	The outcome of the project is inline Vertical research in Autonomic Computing and Self-Management, Self-configured networks, Self-organized service deployment for Next generation operation support systems, Integration and Middleware technologies for Management.	The prototypes of monitoring agent and analyzer ready and under test on a network testbed	The project objective was extended to also test the tools in wide area network. Tests being carried out in BSNL networks.

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Setting up of Trans Eurosia Information Network (TEIN) connectivity. To provide connectivity between Europe and India	1Gbps connectivity will be established between Europe and India	Establish collaborative research in the areas of atomic, nuclear and medical sciences between Europe and India	December 2011	Trans Eurasia Information Network (TEIN3) for 2.5 Gbps connectivity will be established between Europe and India and between Singapore. SFC proposal for implementing the connectivity is under consideration.
Digital Library Initiatives – Digitization / preservation and web enabling of Copyright free data available in physical form	**Digitize:** - 10-15 Million pages Providing bandwidth connectivity to IISc., President House library, IIIT, Hyderabad, IIIT, Allahabad, C-DAC, Noida Hosting the DLI web site for accessing the digitized data	Strengthen Country's identity by digitally preserving the national heritage and intellectual output	March 2010	- Digitized 11.5 Million pages and 17,784 images - recorded 205 hours of audio/video and 4 Walkthroughs - Connectivity provided to nodal centers - Data hosted on DLI web site
	New Project Digitize around 15-20 Million pages	Strengthen Country's identity by digitally preserving the national heritage and intellectual output	March 2010	- 3 New projects have been initiated for digitization - one new project initiated for setting up of a repository and providing connectivity.

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REVIEW OF PAST PERFORMANCE

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2009
Scheme: Headquarter **Budget Outlay:** • Secretariat & Bldg.: Rs.31.30 crore (non-Plan) & Rs.30.40 crore (Plan) • Foreign Trade: Rs.3.10 crore (Non-Plan) • Exhibitions: Rs.0.80 crore (Non-Plan) • Others - Seminars/ Workshops: Rs.0.50 crore (Non-Plan)	• To meet running expenditure of the Secretariat and Plan Schemes • CST re-imbursement of STPI units • To organise exhibitions abroad for promotion of Trade • To organise seminars/workshops for development of electronics in IT	• To run office smoothly. • Export promotion • Trade promotion • Development of electronics in IT		On continual basis Till date Rs. 33.00 lakh has been incurred
Scheme: National Knowledge Network (NKN) **Budget Outlay:** Rs.600.00 crore (Plan) **Objective:** The objective of the National Knowledge Network is to bring together all the stakeholders in Science, Technology, Higher Education, Research &	NKN will interconnect all institutions engaged in research, higher education and scientific development in the country, over a period of time. The output of the project will be a high capacity countrywide Infrastructure at education & research Institute level, which will be available 24x7 to support education and	The NKN will facilitate the knowledge sharing, collaborative research, countrywide classrooms (CWCR) etc. and help the country to evolve as Knowledge Society. This will also	March 2010	**Initial Phase** Upgraded 15 NICNET PoPs to 2.5 Gbps. 50 Institutions connected. Six virtual classrooms established at 6 IITs. **Final Phase** The process of approval of Cabinet

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Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2009
Development, and Governance with speeds of the order of gigabits per second coupled with extremely low latencies; through PoPs in the respective institutions/ organisation.	research application, and other application as envisaged by these institution which require very high bandwidth. • Creation of 80 NKN PoPs. • 500 more Institutions • Creation of Special Purpose Vehicle • NOC & DR NOC will be established.	contribute in socio-economic activities of the country indirectly.		note is under progress.
Scheme: National Informatics Center (NIC) **Budget Outlay:** Rs.550.00 crore (Plan) **Objective:** Provide wide range of E-Governance infrastructure and services in the country at various levels right from central gove-rnment, state governments to district admin-istrations in their initiatives towards providing Good Gover-nance to the	**Cyber Security** • Network and application security audit, Co-relation of security events, End point Security, Deployment of Security at District Centres	Enhanced security on NICNET, Monitoring setup, Security at client end	Procurement March,2010	• Cyber security is a continuous activity. • Ordered security solution for enhancing security at IDC infrastructure and high availability of security for National Data Centre, Pune. • Carried out Monitoring,

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Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2009
people.				analysis and Co-relation of security events of different security solutions in NICNET. • Network security audit of critical Government Ministries • Carried out 590 levels of Security audit of Websites hosted in NICNET Data Centres • Testing of source code scanning software • Setting up of Help Desk Centre for securing applications hosted in NICNET Data Centres • Provision of proactive detection of application security vulnerability hosted over NICNET
	Ceritifying Authority at National Informatics Centre • Setting up of Registration Authorities (RA)	DSC Subscribers will be serviced by new RA office in selected states	Procurement March,2010	• Opening of RA is in final stages at NIC Lucknow and also at Variable Energy Cyclotron Centre (VECC), Kolkata under Department of Atomic Energy

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REVIEW OF PAST PERFORMANCE

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2009
	Computerisation of Land Records			
	• Integration model of Land Record, Registration and Cadastral maps	Enhanced Usability, optimisation of application	October 2009	• SRS has been prepared and finalized for Cadastral mapping.NLRMP training has been completed at the State level
	• Security audit of Land Record Software for 5 States	Availability of secure software.	July,2009	• Security audit has been completed for the states of Tamil Nadu, Goa and Uttar Pradesh. Remaining 2 states in progress.
	Videoconferencing infrastructure development			
	• Augmentation of VC facilities and Up- gradation of Equipment and VC management systems in districts.	Procurement of Various VC systems and VC Management Systems and other related equipment.	Procurement Sept,2009	• VC Management System has been procured and installed. Tender for Procurement of HD VC system is in process through NICSI
	• Decentralization of Videoconferencing facilities by Providing MCUs to selected States	MCUs for State Centers for VC operations.	Procurement Jan 2010	• PO for 3 MCU for Delhi, Jharkhand, and Punjab has been placed and installed. POs for 5 MCUs has been placed and delivered.

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REVIEW OF PAST PERFORMANCE

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2009
	• Deployment of High Definition VC systems for all State Capitals and other important location for Multipoint facility **Remote Sensing & GIS** • GIS ICT Infrastructure, Deployable GIS data, Meta Data Raster as well as Vector GIS Services over NICNET for E-governance & planning	Procurement of HD VC systems for Important locations Customized GIS data products and services over NICNET for E-governance & Planning. GIS application training,	Procurement March,2010 Development and procurement March ,2010	• Tender for Procurement of HD VC system is in process through NICSI • GIS Application & services on National GIS web-portal has been deployed • GIS Applications in the area of sports infrastructure mapping, post office mapping, Rural development and environmental mapping are nearing completion and further getting enhanced. • Meta-Data Server Prototype is developed • Transformation of GIS Data Infrastructure available in Everest Datum to WGS – 84 Datum initiated, with conversion of 5500 GCPs. • Development of GIS data products for planning & E-governance using digital topographic data in 1:50,000 scale form is in progress and

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Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2009
				work for four states, namely Bihar, Gujrat, A.P. & Tamil Nadu has been completed. • Base map updating for South Delhi Completed.
	Utility Mapping Project • Basemap updation of Delhi City, Field Data Photogrammetry data Digital Basemap data • Utility Mapping of the six cities(Kolkata, Bangalore, Chennai, Mumbai, Hyderabad and Ahmedabad) House	Field data collection	Data Collection/ updation March, 2010	• Base map compilation of Bangalore, Chennai, Mumbai and Hyderabad completed
	DATA CENTRE • Set up state-of-art DC at NIC, Delhi • Data Centre at Pune • Data Centre at Bhubneshwar	Accommodate increased net based applications.	Procurement March, 2010	• For setting up of DC at Delhi, action has been initiated. • Setting up of DC at Pune is in final stage of establishment.

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Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2009
	ASP Service			• Site study is under process for Data Centre at Bhubneshwar
	• Enhancement of "Applications Service Provider (ASP)" Infrastructure	Enhancement of e-gov. applications and services delivery levels.	Procurement August, 2009	• Orders for HW/SW placed.
	High Speed Terrestrial Circuits			
	• 285 Districts will have 45/100Mbps connectivity from respective State centres • Total 450 districts will have STM1 channaelised connectivity to extend Last connectivity.	Increase of connectivity capacity and bandwidth.	Procurement March,2010	• Under planning Stage • 285 districts done so far. Activity for 115 districts is under process.
	NICNET International Gateway Project			
	• Gateway Bandwidth will be upgraded to 2.5 GBPS and also redundancy done with respect to ISPs will be achieved	Gateway Bandwidth upgradation	Procurement March,2010	• Accomplished
	Last-Mile Solutions Project The complete NICNET shall be QOS enabled and all MPLs features will be	Improvement of quality of service.	Procurement March,2010	• Approximately 80%

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Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2009
	enabled.			complete and remaining work is under process
Scheme: Facilitation of Setting up of Integrated Township **Budget Outlay:** Rs.0.11 crore (Plan) **Objective:** Information Technology Investment Regions (ITIRs) will be set up in different States	Setting up of integrated townships, IT/ITES units in the ITIR region	Will help provide productivity and employment generation	2011	