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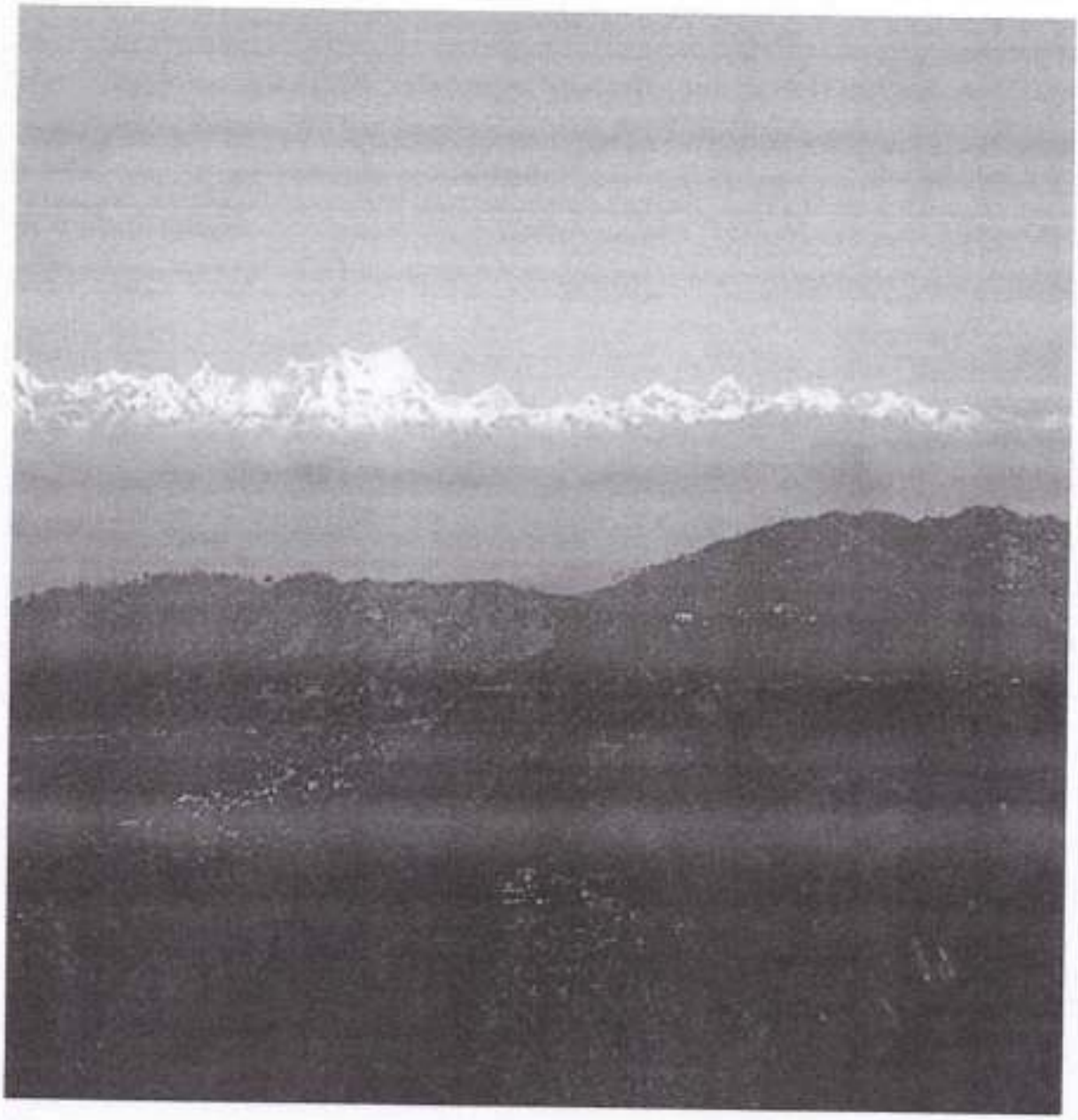
Information and Communication Technology & Electronics Policy Year, 2016-2025 (Uttarakhand State)



Department of Information Technology
Government of Uttarakhand

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CHAPTER 1 - INTRODUCTION

Preamble

1. ***Information & Communication Technology and Electronics (ICT&E)*** are ***key drivers*** of an increasingly knowledge based global economy. Given its current global position in the ICT&E sector, India is well positioned to enhance and leverage its capabilities towards this end. Industrialized and developing countries alike are formulating policies and programs to accelerate ICT and Electronics to reap the benefits of development and dissemination.

2. ICT&E is increasingly regarded as a "key" technology. It is regarded as generic, strategic and critical core area. All developing and developed countries have since recognized the importance of ICT&E and use a variety of policies and joint public-private programs to ***increase ICT&E proliferation.*** In developing countries also, it has been established that ICT&E has the potential to enhance competitiveness of key industries, modernize basic infrastructure and services, alleviate information poverty and reduce transaction costs throughout the economy. These countries use ICT&E in key areas like macro-economic planning and decision making, public administration, education, health-care, manufacturing, finance and banking, transportation, commerce, publishing, energy conservation and environmental management.

3. Major IT hubs in India like Bangalore, Chennai, Hyderabad, Mumbai, Pune and NCR which account for nearly 90% of the total ICT Industry in India are nearly saturated and face infrastructural challenges and human resource constraints for further expansion. This necessitates the absolute imperative for Indian ICT&E Industry to diversify into Tier II and Tier III cities of Uttarakhand. In line with the Global trends, it is imperative that State of Uttarakhand initiates timely and prompt measures with the aim delivering the benefits of ITC&E revolution to its residents.

4. The National Policy on ICT focuses on application of technology-enabled approaches to overcome monumental developmental challenges in education, health, skill development, financial inclusion, employment generation, governance etc. to greatly enhance efficiency across the board in the economy. The Uttarakhand State policy seeks to achieve the twin goals of ***bringing the full power of ICT&E within the reach of the state*** and ***harnessing the capability and human resources of the state*** to enable Uttarakhand to emerge as the Global/National Hub and destination for ICT, ITES and Electronic Manufacturing Services by 2025.

5. The focus of the ICT&E policy is therefore on deployment of ICT in all sectors of the economy, on providing IT solutions and to encourage private partners to set up electronics manufacturing units in the State. This Policy aims at attaining these objectives through coordinated action on the part of various key stakeholders within the State.

6. In addition to ICT proliferation, there is a need to set up and ***enhance the electronics manufacturing units within the State*** under the umbrella of ***"Make in India"*** initiative of the GoI. This would reduce the cost of various components that are currently being procured ex-import. Electronics Hardware Industry consists of electronic systems design and manufacturing which comprises of semiconductor design, high-tech manufacturing, electronic components and electronic system design for consumer electronic products, telecom products & equipment, IT systems and hardware. Electronics industry reported at USD 1.75 Trillion is the largest and fastest growing manufacturing industry in the world. It is expected to reach USD 2.4 Trillion by 2020.

7. **Key Stake Holders:** The key Stake holders in the State are not only IT Dept. (to include ITDA & SeMT) but also includes all Departments of the State including Police Department, Industry representatives from different associations, all Institutes/Universities under Higher Education and Technical Education Department and citizens of the State.
8. As per MSME Policy of the State, the State has been divided into four regions as covered in Chapter 3 and the incentives proposed there in are with the primary aim of boosting expansion of ICT&E Infrastructure in remote areas.

General

9. The State of Uttarakhand was formed on the 9th November 2000 when it was carved out of Northern Uttar Pradesh. Largely a hilly State at the foothills of the Himalayan mountain ranges, its population currently stands around 1.08 Crores in a geographical spread of 53,483 Sq. Km of which approx. 88% is hilly terrain. The State is rich in natural resources especially water and forests with many glaciers, rivers, forests and mountain peaks. It's truly God's Land (Dev Bhoomi).

10. The Government of Uttarakhand proposes to harness the full power of ICT&E for ***improving the quality of life*** of its citizens, bring in ***accelerated social and economic development***, ensure ***transparency in the Government*** decisions, ***accelerate the IT adoption*** amongst various user segments – all leading to an ideal e-society model through efficient, service oriented, cost-effective, information networked, eco-conscious, and with year-on-year growth approach. In addition, Electronic System Design and Manufacturing (ESDM) is the fastest growing segment. As per the National Electronics Policy-2012 (NEP-2012), ESDM is expected to grow to US$ 400 Billion by the year 2020 and will generate a total employment of over 28 million.

11. The purpose of this document is to provide a policy framework for effective infusion and management of ICT&E for achieving a genuine progress of the State in all its aspects. This policy document will become an extended document to the Uttarakhand MSME policy 2015 and Uttarakhand Mega Industries & Investment policy 2015.

12. This Policy document would be reviewed after every three years to monitor the progress made within the State and necessary amendments would be issued thereafter. It is further added that NeGD compiles on a Quarterly basis the progress made by the State for various e-Governance related projects to prepare the National e-readiness Report wherein the various aspects of ICT readiness are indexed, ranked and compared across all States and UTs of India. All Departments are requested to adhere to the timelines issued by the IT Dept. for various ICT related aspects within their respective Depts.

National Objectives

13. It is imperative that the State ICT&E Policy is aligned with the National Policies on the subject. In view of this, the key objectives of the National Policies on "***Information Technology 2012 (NPIT 2012)***", "***National Policy on ESDM 2012***", "***National Electronics Policy 2012 (NEP-2012)***" and "***National Telecom Policy 2012 (NTP-2012)***" are included in this document and summarized below:

    (a) To increase revenues of IT and ITES Industry from 100 Billion USD at present to 300 Billion USD by 2020 and expand exports from 69 Billion USD at present to 200 Billion USD by 2020.

(b) To gain significant global market-share in emerging technologies and Services.
(c) To promote innovation and R&D in cutting edge technologies.
(d) To encourage adoption of ICTs in key economic and strategic sectors to improve their competitiveness and productivity.
(e) To provide fiscal benefits to SMEs and Startups for adoption of IT in value creation
(f) To create a pool of 10 million additional skilled manpower in ICT.
(g) To make at least one individual in every household e-literate. The State of Uttarakhand would endeavor to make all residents e-literate by 2025.
(h) To provide for mandatory delivery of and affordable access to all public services in electronic mode.
(i) To enhance transparency, accountability, efficiency, reliability and decentralization in Government and in particular, in delivery of public services.
(j) To leverage ICT for key Social Sector Initiatives like Education, Health, Rural Development and Financial Services to promote equity and quality.
(k) To make India global hub for development of language technologies, to encourage and facilitate development of content accessible in all Indian languages and thereby help bridge the digital divide.
(l) To enable access of content and ICT applications by differently-abled people to foster inclusive development.
(m) To leverage ICT for expanding the workforce and enabling life-long learning.
(n) To strengthen the Regulatory and Security Framework for ensuring a Secure and legally compliant Cyberspace ecosystem.
(o) To adopt Open standards and promote open source and open technologies.
(p) To create an eco-system for a globally competitive ESDM sector in the country to achieve a turnover of about USD 400 billion by 2020 involving investment of about USD 100 billion and employment to around 28 million people at various levels.
(q) To build on the emerging chip design and embedded software industry to achieve global leadership in Very Large Scale Integration (VLSI), chip design and other frontier technical areas and to achieve a turnover of USD 55 billion by 2020.
(r) To build a strong supply chain of raw materials, parts and electronic components to raise the indigenous availability of these inputs from the present 20-25 per cent to over 60% by 2020.
(s) To increase the export in ESDM sector from USD 5.5 billion to USD 80 billion by 2020.
(t) To significantly enhance the availability of skilled manpower in the ESDM sector. Special focus on augmenting postgraduate education and to produce about 2,500 PhDs annually by 2020.

Vision

14. ***"To use ICT&E as a vehicle for economic development of State of Uttarakhand with all round inclusive growth to create a vibrant society with high quality of life."***

Goals

15. Make the State of Uttarakhand ***fully digitized*** and ***networked society*** where information flow and access across all sections of the society would be enabled through effective ICT infrastructure that would ***propel the economic growth*** of the State.

16. **Employment Generation.** Given the fairly high literacy rate of 78.82% (higher than the national average), the Government aims to reduce unemployment by encouraging ICT, ITES and electronics manufacturing to establish their enterprises in Uttarakhand.

17. To make ***electronics as growth engine*** for the state and to establish Uttarakhand as the most preferred destination for investment in the Electronics System Design and Manufacturing (ESDM) industry.

Mission

18. The mission of this Policy is to:
    (a) To position State of Uttarakhand as an attractive **ICT&E investment destination** in India.
    (b) To leverage ***ICT & E as an engine of growth*** for Uttarakhand.
    (c) To transform physical communities into connected communities that can help to realize ***sustainable economic growth*** and ***enhance the quality of life.***

Objectives

19. Promoting Uttarakhand as an ***attractive investment destination*** for ICT&E companies by providing congenial, industry friendly and proactive working environment.

20. Promote prominent cities/towns in the State as emerging ICT&E destinations by providing ***assistance in setting up*** state of the art infrastructure in the state. This would be achieved by providing Single Window Assistance within the State.

21. To create world class ICT infrastructure as a platform to provide ***seamless connectivity*** for businesses and users, easy to use public and private services in a vibrant ecosystem consisting of ICT operators, Service Providers, Government, Regulators and end users. The State Govt. plans to setup Electronic Manufacturing Clusters (EMCs) under PPP Model.

22. To upgrade and ***develop manpower skills*** required for the ICT&E industry and to accelerate the use of ICT in schools, colleges and other educational institutions with a view to providing skills and knowledge to the youth so as to render them fit for employment in this industry. The State Govt. plans to encourage academic institutions, ITIs/Polytechnic Institutes, private players in imparting Low and High level Skills to students and un-skilled/semi-skilled personnel of the State with the overall aim of training and absorption of at least 1000 such personnel per year by MNCs and Local Industry.

23. Encourage the use of ***ICT in the Government*** not only as a tool for management and decision support systems but also to re-engineer the processes of the government to provide a more efficient, transparent, accountable and responsive government to its citizens. The Govt. of Uttarakhand would take a lead in implementing IT in all its functioning.

24. To upgrade the quality of life of citizens of the State by facilitating ***easy access to consumer applications*** of ICT.

25. To use ICT&E as GDP driver by promoting ICT&E industry in the State, developing the State as an attractive ICT&E destination with a view to ***generating employment for youth*** in this sector thereby raising their earning capacity and simultaneously realizing the export as well as domestic revenue potential in this sector.

26. To promote ***indigenous manufacturing of electronics*** products by creating a favorable investor

friendly atmosphere in the entire value chain of ESDM.

27. To promote the development of a ***vibrant eco-system of R&D***, design and engineering and innovation in Electronics in the state with the state Government to be playing a proactively important role in this.

28. Target ***direct and indirect employment generation for 8000-10000*** state residents per year within the state.

29. Ensure utilization of allotted vacancies under National Policy on Skill Development in ESDM Sector and ***train 15000 personnel*** till 2019. The number of personnel to be trained thereafter would depend on the enhancement/extension of this policy at the National level.

CHAPTER 2 – IMPLEMENTATION STRATEGY

Strategic Thrust

1. There are six strategic thrust areas – 3 pillars supported by 3 foundations. The three pillars include ***Economic Transformation***, ***People Empowerment & Engagement*** and ***Innovations***; which need to be supported by strong foundation which include ***Infrastructure Development***, ***Human Capital Development*** and ***bridging the digital divide***. All six thrust areas would will lead to the emergent of ICT&E as an engine for growth for Uttarakhand State; recognition of Uttarakhand as the most preferred ICT&E destination in India and result in enhancement of quality of life for the residents of the State. The State Govt. also plans to set up second IT and Education Hub besides the one existing IT Park at Dehradun. The Govt. of Uttarakhand also plans to set up Data Center Clusters in Hilly areas to leverage the cold weather conditions in the State. The second IT & Education Hub and Data Center Clusters are planned to be set up in next two years and shall be administered by IT Dept.

2. **Earmarking of IT Budget:** All State Departments would earmark certain percentage of their Annual Budget for creation and enhancement of IT Infrastructure.

Implementation of Information and Communication Technology (ICT) Policy

3. **Good Governance through ICT**
   (a) Recognizing the fact that good Governance is primarily the combined effect of **People, Processes and Technology**, the Government of Uttarakhand would strive to deploy 'state-of-art' technologies supported by optimized administrative processes, simplifying the interface of the citizens and businesses with the Government, and building adequate skills among people in the effective use of ICT. The state shall use information as a tool for empowerment of its citizens.
   (b) As such, one of the goal of the Government is to ***cooperate, collaborate and integrate information across different departments in the State and the Centre*** that would help in delivering prompt services to the citizens, businesses and other Government Departments, in a manner that simplifies Government processes and aggregates different inter-related services amongst various Departments.
   (c) Government targets to provide most of the ***citizen centric services through electronic mode*** by 2018. To achieve the same, state wide roll out of e-District and other Mission Mode Projects (MMPs) that are underway. Government targets to bring most of the citizen centric services transparently and efficiently through these projects from a single portal.
   (d) Government targets to ***computerize all internal government process*** by end of 2018. Government plans to go "Paper Less" by this time. ERP systems including HRMS, e-Office, e-File will be implemented in all Govt. Departments. ***Digital signatures / eSignature*** will be provided to all the officials for this purpose.
   (e) Use of ***Digital Lockers*** would be encouraged wherein the citizens can secure personnel documentation on secure media and share the same with various agencies when required rather than submission of photocopied documents. This process would start with all Govt. officials who would be encouraged to utilize this facility.
   (f) Through e-Governance, the State of Uttarakhand believes in ***anytime, anyplace delivery of a government service*** to its citizens. The choice must rest with the citizen and not with the government department. The State shall therefore use technologies to overcome the handicap imposed by its terrain to deliver such services through CSCs / Internet.

(g) The State Govt. plans to adopt new generation technologies based on best industrial practices and guidelines issued by Central Govt. from time to time. The State Govt would inculcate Cyber Discipline within all the Depts. Of the Govt to reduce loss of valuable data.

(h) Special emphasis will be laid to provide user interface in a form and manner that is easy and convenient for large sections of the society to interact with the technology interface. A choice of devices – PCs, telephones, digital TV, mobile devices, kiosks, Personal Digital Assistants etc. will be considered to ***create and support an infrastructure*** to facilitate pervasive online access, subject to device suitability to support transactions. The Government plans to provide impetus to following aspects:

(i) Coordinate with Central Government agencies, banking / financial institutions and NGOs for funding of efficient access devices (for internet / broadband access) to the citizens.

(ii) In order to ensure access for the citizens to the Government offices and relevant information, the state is setting up ***Common Service Centers*** (CSCs) in all villages in line with the Common Services Centre Scheme proposed by the Department of Information Technology, Government of India. These CSCs shall serve as the common access point to the Government and its various offices.

(iii) Government targets to implement ***State Resident Data Hub (SRDH)*** project to prepare a database of all the state residents, which can be used by all other applications as a central repository of beneficiaries under various schemes. This database will be linked with AADHAR for authentication and deduplication services. This data base will provide enormous help in avoiding leakages in government schemes and also act as decision support system in planning of various welfare schemes. However, confidentiality of personal data as per GOI guidelines vis-à-vis guidelines issued by Honorable Supreme Court Would be strictly adhered to. Initially following departments will be made ***AADHAR ready*** :

- Department of Social Welfare
- Department of Food and Civil Supplies
- Department of Rural Development
- Department of Urban Development
- Department of School Education
- Department of Higher Education
- Department of Technical Education
- Department of Health
- Department of Revenue
- Department of Employment

(i) The IT department would work closely with other departments in the State to identify opportunities for improving the internal efficiencies of these departments with the aim of enhancing the speed of delivery of their services to the citizens.

(j) Given the difficult mountain terrain for the hill districts, ICT can play a very important role for delivering quality education & healthcare services. ICT would also be used for strengthening disaster management systems.

4. Building an effective ICT Infrastructure

(a) Supporting National ICT Policies

(i) Various initiatives under National e-Governance Plan (NeGP) of the Department of Information Technology, Government of India relating to **State Wide Area Network (SWAN), Common Service Centers (CSCs), State Data Centre (SDC) etc.** will be

implemented as per the directives of the Central Government. Additional infrastructure needed beyond the central support will be provided for by the State Government.

(ii) **SWAN**: ***State Wide Area Network (UKSWAN)*** is already in place connecting the State Head Quarters (SHQ) with all the 13 District Headquarters (DHQs) and DHQs to respective Block Headquarters (BHQ) / Tehsil Headquarters (THQ).

(iii) **CSCs:** Government of India has formulated a National e-Governance Plan (NeGP) with the vision of providing all Government Services in an integrated manner at the doorstep of the citizen, at an affordable cost. One of the models for delivery of ***"Web-enabled Anytime, anywhere access"*** to information and services in rural India under the project Common Services Centers (CSCs), ICT enabled centers in the rural areas covering all the Districts will be created.

(iv) **SDC:** It will provide consolidation of services, applications and infrastructure to render efficient electronic ***delivery of G2G, G2C and G2B*** services. It will provide storage where all Government departments' data, application servers, web servers, and mail servers can be resided. The State is coming up with state-of-the-art SDC at IT Bhawan located at IT Park, Dehradun.

(b) Technology - Architecture & Standards

(i) In developing an e-Governance Architecture Framework, due recognition will be given to the role of the different players in the service creation and delivery, such as the Service Seekers, Government Service and other third-party service providers such as authentication and payment gateway services, network providers, Infrastructure Management services and will provide hassle free interface amongst these players to ensure smooth and efficient creation and delivery of services, **ensuring 24 X 7 quality of services through effective Public – Private - Partnership models.**

(ii) Based on the framework being adopted by the Centre, the State will follow and will mandate compliance to those **e-Governance Standards** relating to interoperability, Data and Metadata as recommended by the Department of Information Technology, Government of India as and when these Standards are released.

(iii) The Government of Uttarakhand is technologically neutral but it is necessary for integration that any software is based on open standards and its integration standards are defined. Therefore, Government of Uttarakhand will work on transparent standards.

(iv) The Government recognizes the need to be free of any technology / vendor domination and will therefore encourage multiple technologies and vendors to co-exist that would contribute to the improvement in the quality of services rendered by these vendor's / service providers. This would provide the necessary leeway for newer technologies to be brought in. This accelerates the private participation in the delivery of services for the citizens.

(c) Network / Communication Infrastructure

(i) Creation of a connectivity backbone is the foundation on which the building blocks of e-Governance initiatives will be placed. A **State Wide Area Network (SWAN)** is already in place for connectivity across the state. The SWAN guidelines and support from the Centre will be utilized to fully reap the benefits of the communication infrastructure. The Government will encourage **proliferation of other Public and Private Networks** to increase the bandwidth availability and to bring price affordability through competition.

(ii) State targets to provide connectivity to all the government departments of the state through **horizontal connectivity** scheme under SWAN.

(iii) State targets to achieve connectivity till Gram Panchayat (GPs) level by end of 2017 through the implementation of **National Optical Fiber Network (NOFN)** project of Government of India. State pledge to support in speedy implementation of this project by providing timely approvals required for the scheme and whatever support required.

(iv) To encourage tourism in the state, the State would provide free Wi-Fi Services at tourist/pilgrimage locations and DHQs in a phased manner.

(d) **Mobile Communication:** With the advancement of technology, quantum surge in data consumption, increasing tele-density and robust growth in the number of consumers with smart phones, the need to establish many more towers especially in the remote areas has become very necessary. Mobile towers in required numbers are essential for any mobile network and the absence of these is bound to result in gaps in the mobile coverage, leading to degradation of services, slow internet speeds and call drops. Large remote and hilly parts of Uttarakhand State are still uncovered by mobile connectivity thereby denying the basis services to the residents of these areas. In order to promote setting up of mobile towers in these areas, The State Govt. would provide incentives to Service providers. The State Govt. would also encourage Govt. Depts. To explore usage of Govt. Buildings/lands for installation of Mobile towers.

5. **Developing Human skills**

(a) In the area of ICT, the State Government will address development skills that have the potential for increasing employment opportunities - ***Building the capacity of citizens,*** especially the youth, Government employees, teachers, industrial employees, rural communities including women, providing employment opportunities in information technology industry.

(b) As part of the capacity building exercise, the Government of Uttarakhand aims at universal computer/digital literacy. Towards this end, Government of Uttarakhand is in the process of digitalization of all the schools and colleges of the state. Various other initiatives under ***Rasht Riya Uchchatar Shiksha Abhiyan*** (RUSA) and ***Rashtriya Madhyamik Shiksha Abhiyan*** (RMSA) to increase computer/digital literacy are underway implementation. The state would leverage the existing ITIs, Polytechnic Institutes and link these to the nearest ICT&E industry.

(c) The State would leverage existing Technical Institutes and private firms and carry out collaborative R&D efforts that could benefit the population.

(d) Every passing student (From State Government Schools/Colleges) should possess adequate ICT skills. Keeping in trend with the fast paces ICT revolution, Schools and Colleges would be encouraged to incorporate these in their curriculum.

(e) Capacity building within the Government will be taken up based on the guidelines of the Department of Information Technology, Government of India under the National e-Governance Plan. This will include a mix of ***outsourcing and in-house competencies*** for various skill levels such as Program Management, Business Process Reengineering, Change Management, Architecture designs, etc. Various Specialized Training in e-Governance (STeP) modules are being conducted and more are planned for the government officials of all the departments. Leadership Meet / Seminar for top level politicians and bureaucrats of the state is planned to bring awareness about ICT among them so that everyone is on the same page to achieve common goal.

(f) Every new government official will be provided with ***15 days mandatory training*** on ICT in first year. These courses would include basic to medium level computer literacy modules. Refresher courses of 3 days will be imparted after every 2 years. Arrangements to train all existing officials with such training modules will be made.

(g) ATIs and other government training institutions will be strengthened/developed for such

trainings.

(h) Government plans to have ***onboard Virtual IT Cadre to assist various departments in their IT initiatives.*** As part of IT cadre they will work on e-Governance / IT projects and act as "IT Champion". They will report to the department or DM (in case of district level officer) as well as have dotted line reporting to the IT department. These officials will be provided with intensive IT training so that they will be able to oversee the assigned IT projects.

6. **Security**

(a) The Government will encourage use of **smart cards** and **biometrics** across many domains such as banking, retail payments, vehicle registration, internet payments, citizen identity, ration cards, pensions, driving licenses, health records etc.

(b) Government will encourage use of **digital lockers, digital certificates** and will identify existing certifying authorities and service providers and strive to keep the prices affordable for common use.

(c) The Government of Uttarakhand is intended to be a Zero Software Piracy Government.

7. **Accelerating Industrial Growth through IT Adoption and Attracting Knowledge Industries**

(a) The economic growth of a State is driven by increased value-added business / industrial activity and the availability of a rich set of natural resources. A major portion of the State's GDP currently comes from the services sector, making the **State a service oriented economy**. The main contributors to GDP include Tourism, Agriculture, Horticulture, Medicinal / herbal wealth and Hydro energy.

(b) Government is firm **to promote private investment in the IT industry** in the State. The State would facilitate and encourage adoption of IT clusters by private players under PPP model. The lands for these clusters would be provided at discounted rates on revenue sharing model.

Implementation of Electronics System Design and Manufacturing (ESDM) Policy

8. **Infrastructure Development:** A committee comprising members from IT Department and industry including industry associations would oversee the progress of infrastructure initiatives. State IT Department in consultation with SIIDCUL would identify the suitable sites for development of manufacturing clusters. The State IT Dept. would also in consultation with SIIDCUL identify suitable EMC sites in A & B category regions of the State for its acquisition and provisioning to private industry.

9. **Institutional Mechanism to Promote ESDM Sector:** The State would constitute an ESDM specific nodal agency headed by Secretary, the Department of IT. The agency will have officials from industry and government with the following key responsibilities:

(i) Investment promotion & monitoring including liaison with key potential investors.

(ii) ***Promoting Brand Uttarakhand*** through participation in major global expos and conducting roadshows in countries that have potential investors (the US, Europe, Japan, Taiwan, Korea and other countries of South East Asia) and supported by print and digital media advertising.

(iii) The committee should also have technical experts with in-depth understanding of the sector.

10. **Promotional Initiatives under the ESDM Policy:** Government of Uttarakhand hereby outlines the following promotional initiatives under the ESDM Policy, which will enable the State to be a

leading contributor in India's ESDM sector and make the State a preferred destination for investments in ESDM.

(a) **Preferential Market Access (PMA) Policy**

(i) The Government of Uttarakhand would give preference to locally manufactured electronic products in the State for Government procurements based on the criteria linked to the extent of local value addition in line with the PMA of the GOI.

(ii) Domestically manufactured Electronic products are those that are manufactured by companies registered and established in Uttarakhand and engaged in manufacturing, including contract manufacturers, but excluding traders.

(b) **Creation of Eco-System for Innovation and R&D in ESDM Sector.** Uttarakhand will set up ***two ESDM Innovation & R&D Centers*** that will provide complete infrastructure to entrepreneurs and companies who want to take their product concept and implement a working prototype. These centers would have requisite design tools such as VLSI design tools, prototype development facilities, testing facilities, characterization labs, compliance and certifications labs along with requisite manpower and component stocks. The first such center shall be housed at College of Technology, GBPUAT, Pant Nagar and subsequent center will be setup in other part of the state. This would be decided by a Committee of Secretaries based on the recommendation of Secretary IT.

(c) **Electronics Manufacturing Clusters (EMC):** Uttarakhand will promote the creation of high-class EMCs to provide world-class infrastructure facilities necessary to attract investment into the ESDM sector. The State will encourage participation of the private sector in a PPP mode, wherever practical, in developing such infrastructure. The State Government would support ***development of 3 (three) EMCs in the State by 2025***. One of the proposed site for EMC is Kashipur, other two sites would be identified by the IT Dept. in consultation with SIIDCUL. Support of Government of Uttarakhand for infrastructure development in EMCs shall not exceed 10% of the total infrastructure cost.

(d) **Establishing Uttarakhand Brand:** The Government will market Uttarakhand as an attractive ESDM center for the global investor audience and build a strong "Brand Uttarakhand" for ESDM. The State shall engage with the top ESDM companies across the world to pro-actively invite investments in the state.

(e) **Innovation Promotion:** Government will promote innovation in the ESDM Sector through Awards by way of grants. The best innovations in the ESDM sector will be selected by the Screening Committee comprising of Industry and Academia representatives.

(f) **Skill Development in ESDM**

(i) In order to enable India's ascent as the 'Skill Capital of the World', it is imperative to create a vehicle to vocationally skill Indian youth, with special focus on rural and semi-urban youth, so as to create inclusive growth.

(ii) Establishment of new ITI/Diploma institutes in Uttarakhand with an annual intake capacity in line with the phase-wise talent requirement. – new institutions would come up in the close vicinity of the industry clusters, near rural and semi-urban areas.

(iii) Addition of a target of 10000 trained students for ESDM sector to the 12th five-year plan targets of Uttarakhand state employment mission.

(iv) Masters courses in ESDM related disciplines in all major institutes.

(v) Encouraging joint R&D labs by companies and universities.

(vi) The Government of Uttarakhand would work with the Telecom Sector Skill Council (TSSC) which has been established under the aegis of National Skill Development Corporation (NSDC) with a mandate to train 5 million people over the next 6 years in the telecom sector.

(vii) The State Government would continue to put forward efforts in reaping benefits from the National Skill Certification and Monetary Reward Scheme (STAR) which is aimed at

encouraging skill development of the Youth as per GoI ESDM Policy on the subject. Government of Uttarakhand would aggressively pursue to be part of centrally sanctioned schemes for skill development e.g. the current DeitY scheme on skill development in the ESDM sector.

(g) **Post-performance incentives and subsidies**

(i) **Incentives for Patents and IPR:** High-value-added ESDM manufacturing requires creation of Intellectual Property (IPR) which needs to be protected in the form of Patents, both in India as well as abroad. This is an activity that needs to be actively encouraged so that Uttarakhand becomes a leader in IPR and knowledge economy, which in turn will result in significant commercial success. The target is to file 2000 domestic and 1000 international patents in ESDM by Uttarakhand ESDM Companies by 2025. The Government shall reimburse up to 50% of the actual costs (including filing fees, attorney fees, search fees, maintenance fees) with a maximum of INR 500,000 for filing a domestic patent and up to INR 1,000,000 for filing an international patent. This reimbursement shall be payable 75% after the patent is filed and the balance 25% after the patent has been granted. The patent filing incentives provided by Government of Uttarakhand shall be in addition to any existing scheme of Govt. of India.

Rural BPO/KPO Industry

11. Rural BPO/KPO is one of the most important industry due to the following:

(a) Create non-agricultural local employment option in rural areas

(b) Jobs move to where people are, rather than people moving to where jobs are – retains social fabric, less migration & urbanization pressures.

(c) Increased household income creates greater purchasing power and due to trickle-down effect, creates significant local economic development; helps bridge income divide geographically.

(d) Greater thrust on gender diversity by creating access to jobs for latent work-force which usually will not migrate for jobs (young women).

(e) Ancillary and support services to such units provide indirect employment to at least 3-4 more people, for every individual directly employed.

(f) Helps create a digital-link to "connect" remote rural areas into mainstream: participation in knowledge based services promotes greater awareness of ICT and better usage of knowledge and information for other challenges in rural areas (education, health, agriculture support etc.)

(g) Helps India to maintain global leadership position in BPO services (cost-leadership impacted in urban areas).

(h) The State Govt. would reserve 25% of government's BPO/KPO business (as and when it comes up) for local BPO/KPO industry. The State BPO/KPO Industry would be awarded 25% of the Government Business (as and when it comes up) at the price of L1 based on competitive bidding.

Data Centers and Data Center Parks

12. With the growing use of Information Technology and Digitization, the demand for data storage is increasing phenomenally. This is creating demand for data centers, which require operating at a temperature of around 24 degrees in a pollution free environment. Uttarakhand with its cool climate, especially in the hills and pollution free environment supported by appropriate connectivity – both physical and IT connectivity, is an ideal place to set up data centers.

CHAPTER 3 – INCENTIVES

Incentives Provided by Govt. of India under the National Electronics Policy (NEP) 2012

1. **Financial incentives under M-SIPS:** Based on this Policy, Electronic products manufacturing units shall be provided incentive for 20% of capex for SEZ based units and 25% of capex plus reimbursement of excise/ CVD on capital equipment for non-SEZ based units. Thresholds for investments in the Electronics unit have been defined in the M-SIPS 2012 notification of MOC-IT.

2. **Financial Assistance for Greenfield and Brownfield EMCs:**
   (a) For greenfield EMCs, financial assistance will be provided for up to 50% of project cost, limited to INR 50 Crores for every 100 acres of land
   (b) For expansion/upgradation of brownfield EMCs, financial assistance will be provided up to 75% of the project cost, limited to INR 50 Crores

3. **Development of Electronics Manufacturing Clusters by MSMEs:**
   (a) Reimbursement of expenses of diagnostic study for Greenfield or Brownfield EMCs – INR 2.50 Lakhs/cluster.
   (b) Reimbursement of expenses incurred for soft interventions will be 75% of the sanctioned amount of the project cost in the DPR, limited to INR2.5 Lakhs/cluster.
   (c) Reimbursement of expenses incurred for preparing Detailed Project Report (DPR) – INR 5 Lakhs/cluster

4. **Preferential Market Access:** The policy of GoI on preferential market access in Government procurement for domestically manufactured electronics products shall be implemented in all Government of Uttarakhand departments. Special preference shall be given to Uttarakhand-based manufacturers.

5. **Reimbursement of Expenses for Testing and Certification Required for Export for MSMEs:**
   (a) Reimbursement of testing charges incurred for getting the products tested from any lab domestic/abroad, subject to the testing charges incurred for getting the products tested at STQC labs as per prevailing rates of test charges levied by STQC labs. The maximum reimbursement under the scheme would be limited to INR 75,000/-.
   (b) Reimbursement of 25% charges towards the annual certification fee paid to any certification body (domestic/abroad) per model at actual, subject to:
      (i) Up to INR 50,000/- for one model.
      (ii) Up to two certifications and each model would qualify only once under the scheme.

6. **Reimbursement of expenses relating to compliance with "Indian Standards for MSMEs:**
   (a) Reimbursement of actual testing charges subject to the testing charges incurred for getting the products tested at STQC labs (for initial registration as well as during surveillance) as per prevailing rates of test charges levied by STQC labs. The maximum re-imbursement under the scheme would be limited to INR 75,000/-.
   (b) Reimbursement of actual test charges received by BIS for Registration (Max. INR 25,000/-).

7. **Skill Development:**

(a) To facilitate skill development in the Electronics sector focusing on youth to increase their employability to work in 'Manufacturing' and 'Service support' functions, a 'Scheme for Financial Assistance to Telangana for Skill Development' has been approved by GoI.

(b) The scheme provides for 75 % of training fee as assistance for training courses identified by Electronics Sector Skills Council, Telecom Sector Skills Council and NIELIT.

(c) The scheme also provides for 100% fee reimbursement to 40% of the seats which would be reserved for the candidates belonging to SC/ST/Economically weaker sections.

(d) Further, Registration-cum-Certification fee per candidate (for the first attempt only) would also be reimbursed to assessing/certifying agencies.

(e) A target of 15,000 (3000 per year) candidates for Uttarakhand has been set to benefit from this scheme

8. **Promoting R&D and Announcement of National Awards:**

(a) GoI has targeted to increase the number of PhDs to 3,000 over a period of 5 years with 100% funding by the GoI.

(b) To recognize the achievements in the Electronics industry, to motivate the entrepreneurs in the sector and to encourage new investments and innovation in the sector, GoI has constituted various national awards with budget of more than INR 3.5 Crores.

Division of Regions

9. Categorization of various regions in the State of Uttarakhand has been defined as per Uttarakhand Micro, Small and Medium Enterprise (MSME) Policy 2015 where in the State has been divided into four categories for the purpose of quantum of incentives/subsidies as under:

Category	Regions Included
Category A	Whole Districts of Pithoragrah, Uttarkashi, Chamoli, Champawat, Rudraprayag and Bageshwar.
Category B	• Whole Districts of Pauri Garhwal, Tehri Garhwal, Almora • All hilly development blocks of District Dehradun other than Vikasnagar, Doiwala, Sahaspur and Rajpur. • All hilly development blocks of District Nainital other than Haldwani and Ramnagar.
Category C	• Regions located above 650 mtrs from sea level of Raipur, Sahaspur, Vikasnagar and Doiwala development blocks of District Dehradun. • Ramnagar and Haldwani development blocks of District Nainital.
Category D	• Whole Districts of Haridwar and UdhamSingh Nagar • Remaining area of District Dehradun and Nainital (which are not included in category 'B' and 'C').

Note : The categorization of above regions would remain same for ICT&E Policy 2016

Incentives provided by Uttarakhand State

Fiscal Incentives

10. Various Fiscal incentives proposed to be provided by the State are enumerated below. Also shown in the table below is the applicability of these incentives to "New Industry", "Existing Industry" and "Expansion Industry" (existing industry undergoing capacity expansion). If an existing company not in IT Sector, sets up an IT venture, or an existing IT company sets up a new line of business in the sector, it would be considered as a '**New Industry**' as per this policy.

Ser no	Incentive proposed	New	Existing	Expansion
1	Capital Subsidy (Equipment, Plant & Machinery)	√	X	√
2	Captive Equipment Subsidy (Power Generation System)	√	X	√
3	Land cost	√	X	√
4	Stamp duty exemption	√	√	√
5	Tax (VAT) subsidy	√	X	√
6	Interest on Loan subsidy	√	X	X
7	Electricity Subsidy	√	√	√
8	Effluent Treatment Plants (ETP)	√	X	√
9	Patent Filing Subsidy	√	√	√
10	Use of Natural Measures	√	√	√
11	Employment Generation	√	√	√
12	Incentive for State BPO/KPO Industry on Connectivity Charges	√	X	√
13	Incentive for State - Govt. ICT&E procurements/tenders (only for Companies with HQs in Uttarakhand)	√	√	√

14	Installation of Mobile Towers	√	X	X

11. The details of various Fiscal incentives proposed to be provided for the industry in various regions of the State are listed in the table below:

Incentives under ICT&E Policy					
Ser No	**Subsidy**	**Cat A**	**Cat B**	**Cat C**	**Cat D**
1	**Capital Subsidy (Equipment, Plant & Machinery)**	45% (Max. up to Rs. 45 lacs)		35% (Max. up to Rs. 35 lacs)	
2	**Captive Equipment Subsidy (Power Generation System)**	20% for all Categories (Additional 10% subsidy will be awarded on use of natural resources like Solar, Wind or Hybrid systems)			
3	**Land Cost Subsidy (only for Govt. Land)**	50% (irrespective of size of the project)		**Large Projects** (Rs 50-75 cr): 15% **Mega Projects** (Rs 75-200 cr): 25% **Ultra Mega Projects** (> Rs 200 cr): 30%	
4	**Stamp Duty Exemption**	100%			
5	**VAT@**	100% for first 5 yrs & 90% thereafter		100% for first 5 yrs & 60% thereafter	
6	**Interest Subsidy on Loan**	12% (Max up to Rs 10 lacs/yr/unit)		8% (Max up to Rs 6 lacs/yr/unit)	
7	**Electricity Subsidy (on Electricity Duty)**	100% for first 10 yrs thereafter 80%		50% for first 10 yrs and thereafter Nil	
8	**Effluent Treatment Plants (ETP)**	One time capital subsidy up to 50% of the cost of ETP subject to a ceiling of Rs 50 Lacs			
9	**Patent Filing**	**Domestic Patent** : Rs 5 lacs/- **International Patent**: Rs 10 lacs/- (Only for Companies having their HQs in Uttarakhand)			
10	**Use of Natural Measures**	**Rain Water Harvesting:** 50% of cost (max Rs 2 Lacs) **Waste Water Recycling** - 50% of cost (max Rs 5 Lacs)			
11	**Employment Generation**	For 3 yrs (max)	For 2 yrs (max)	For 1 yrs (max)	Nil

11A	Note	Rs 700/- p.m/male employee & Rs 1000/- p.m for female/EWS/SC/ST drawing max salary of Rs 15,000/- subject to employee strength exceeding the Specified Threshold of Direct Employees.			
12	Incentive for State BPO/KPO Industry on Connectivity Charges	50% for first 3 yrs	30% for first 2 yrs	Nil	Nil
13	Incentive for State - Govt. ICT&E procurements/tenders (only for Companies with HQs in Uttarakhand)	10% price preferential.			
14	Installation of Mobile Towers	Cat A : 100% rebate on Govt charges Cat B : 50% rebate on Govt charges			

Note

@ - The unit can deposit the tax for the first quarter and reimbursement of net VAT would be credited at the end of the quarter, subject to its adjustment depending upon actual incident of taxation.

Non Fiscal Incentives

12. The State Government shall generate an investor friendly environment in the State and shall ensure:

    (a) Preferential allotment of land for ICT industry and ESDM industry in the State.
    (b) E-District Managers (EDMs)/any other official/appointment nominated by the IT Department would be the Nodal Officers for each District in the State. He would act as a single window official for resolution and monitoring of ICT & E Industry related issues within the District.
    (c) Continuous/uninterrupted power supply to ICT and ESDM industries.
    (d) Dedicated additional feeders would be provided both to Greenfield and Brownfield EMCs to ensure guaranteed uninterrupted power supply 24x7.
    (e) Lending in ICT and ESDM shall be considered as priority sector loaning by State Level Financial Institutions.
    (f) Special efforts to develop high quality social infrastructure like schools, housing, health, entertainment, and leisure facilities in ICT and ESDM industry locations.
    (g) Providing an enabling administration system for obtaining easy clearances & approvals from various Government Departments.
    (h) The ESDM units shall be exempted from inspections/certifications from various Acts and Rules administered by the Labor Department of the State Government. Any administration of labor laws by the Department should be in prior consultation with the Industry stakeholders.

Infrastructure Support:

13. The State shall endeavor to attract these high technology industries by leveraging:

    (a) Its strength: a cool and picturesque locale, abundant. The State shall endeavor to attract

these high technology industries by leveraging its strength: a cool and picturesque locale, abundant water, competitive real estate prices, qualified HR, skilled IT workforce, proactive administration and developing an infrastructure to improve air, rail, road and telecommunication connectivity.

(b) Uttarakhand is well connected to the National Capital through Air, Rail and Road Transport having two functional airports (at Dehradun & Pant Nagar), nine major railway stations and 20 bus stations.

(c) Uttarakhand is also having well-developed Integrated Industrial Estates (IIEs), IT Parks and growth centers at various well approachable locations in Uttarakhand like Haridwar, Pant Nagar, Dehradun etc. In addition to existing IT Park at Dehradun, the State Government would set up additional IT Park at Ram Nagar/Pant Nagar. In addition, it is also proposed to setup ICT Hubs and ESDM Hubs at all major cities in the state.

(d) The Government will aggressively identify potential investors as part of a planned approach and will present Uttarakhand's value proposition in the specific context of their businesses.

(e) The Government will attempt to attract the knowledge industry to Uttarakhand by providing the necessary infrastructure for ICT education and skill development in ESDM.

(f) The Government will ensure that all clearances to set up a new business will be done on top most priority.

(g) The Government will support workshops/seminars on IT with industry participation.

CHAPTER 4 - MONITORING AND EXECUTION

1. It is imperative to note that the success of any policy purely depends on its implementation. However, it has been seen that there is tremendous resistance to change within Government establishments. Hence there is a need to set timelines for various activities for holistic implementation of this policy. These targets and milestones need to be reviewed on a regular basis. To ensure successful implementation of this policy in letter and spirit, following is proposed:

   (a) Information Technology Dept., State of Uttarakhand shall function as the Nodal Agency for all IT initiatives of the state.
   (b) IT Department will do benchmarking of the departments to identify the current state of e-Governance in the departments and create an IT roadmap for the departments. IT cell of the department shall implement the roadmap.
   (c) In the implementation of the various e-Governance Projects, the State Government will set up a Project Monitoring Unit, which will work closely with Independent Software Developers / Vendors / system integrators, Back end Departments of the Government, under the supervision of the Nodal Agency.
   (d) After launching of the e-Governance project, the Departmental head will submit a complete report on the learning and recommendations.
   (e) Surveys will be periodically undertaken to assess the level of acceptance of any initiative. This would throw up alerts indicating the need for course corrections in the strategy options and implementations.
   (f) The Government would examine the cost savings on account of the newer forms of service delivery and how such savings could be passed on to the end users.
   (g) Through mass media publicity and special incentives for transacting online, the Government would actually be encouraging the use of ICT.

Categories of Industries included in the scope / definition of IT/ITeS Industry

1. **Computing devices including:**
   (a) Desktop
   (b) Personal Computer
   (c) Servers
   (d) Work-station
   (e) Nodes
   (f) Terminals
   (g) Network P.C.
   (h) Home P.C.
   (i) Lap-top Computers
   (j) Note Book Computers
   (k) Palm top Computer / PDA

2. **Network Controller Cards / Memories including:**
   (a) Network Interface Card (NIC)
   (b) Adaptor – Ethernet / PCI / EISA / Combo / PCMICA
   (c) SIMMs – Memory
   (d) DIMMs – Memory
   (e) Central Processing Unit (CPU)
   (f) Controller – SCSI / Array
   (g) Processors – Processor / Processor Power Module / Upgrade

3. **Storage Units including:**
   (a) Hard Disk Drives / Hard Drives
   (b) RAID Devices & their Controllers
   (c) C.D. ROM Drives
   (d) Tape Drives – DLT Drives / DAT
   (e) Optical Disk Drives
   (f) Other Digital Storage Devices

4. **Others:** Key Board, Monitor, Mouse and Multi-media Kits

5. **Printers and Output Devices including:**
   (a) Dot matrix
   (b) LaserJet
   (c) Inkjet
   (d) Deskjet
   (e) LED Printers
   (f) Line Printers
   (g) LED TV
   (h) Plotters
   (i) Pass-book Printers

6. **Networking products including:**
   (a) Routers
   (b) Switches

(c) Concentrators
(d) Trans-receivers

7. **Software including:**
   (a) Application Software
   (b) Operating system
   (c) Middleware / Firmware
   (d) Anti-Virus Software

8. **Power supplies to Computer Systems including:**
   (a) Switch mode power supplies
   (b) Uninterrupted Power supplies

9. **Networking / Cabling & related accessories (related to IT Industry)**
   (a) Fiber Cable
   (b) Copper Cable
   (c) Cables
   (d) Connectors, Terminal Blocks
   (e) Jack panels, patch cord
   (f) Mounting cord / wiring blocks
   (g) Surface mount boxes

10. **Consumables including:**
    (a) C.D. ROM / Compact Disk
    (b) Tapes DAT / DLT
    (c) Ribbons
    (d) Toners
    (e) Inkjet Cartridges
    (f) Inks for Output devices

11. **Electronic Components:**
    (a) Printed Circuit Board / populated PCB
    (b) Printed Circuit Board / PCB
    (c) Transistors
    (d) Integrated Circuits / ICs
    (e) Diodes / Thyristor / LED
    (f) Resistors
    (g) Capacitors
    (h) Switches / (On / Off, Push button, Rocker, etc.)
    (i) Plugs / sockets / relays
    (j) Magnetic heads, Print heads
    (k) Connectors
    (l) Microphones / Speakers
    (m) Fuses
    (n) Electronic Displays
    (o) Micro Motors
    (p) Transformers
    (q) Major IoT constituents like sensors, transducers and actuators.
    (r) Bio-metric systems, RFIDs, etc.
    (s) LED Light

12. **Telecommunication Equipment including:**
    (a) Telephones
    (b) Videophones
    (c) Facsimile machines / Fax cards
    (d) Tele-Printers / Telex machine
    (e) PABX / EPABX / RAX / MAX – Telephone Exchange
    (f) Multiplexers / Muxes
    (g) Modems
    (h) Telephone answering machines
    (i) Telecommunication Switching Apparatus
    (j) Antenna & Mast
    (k) Wireless Datacom equipment
    (l) Receiving equipment like Pagers, Mobile / Cellular Phones, etc.
    (m) VSATs
    (n) Video Conferencing Equipment
    (o) Including Set Top Boxes for both Video and Digital Signaling.
    (p) Mobile Phone and its accessories

13. **Consumer Electronics and Appliances**

14. **IT Enabled Services:**
    (a) IT Enabled Services are business processes and services, the end products/services of which are:
        (i) Delivered outside India
        (ii) Delivered over communication networks, and
        (iii) Either externally contracted (out-sourced) or provided by a remote subsidiary of the same company (out-located).
    (b) Services which would not be included are:
        (i) Remote production/manufacturing units
        (ii) The Corporate offices of companies or their local branches
        (iii) Virtual business on Internet.
    (c) Following services which meet the above criteria would be included:
        (i) Back-Office Operations
        (ii) Call Centers/BPO/KPO
        (iii) Content Development or Animation
        (iv) Data Processing
        (v) Engineering and Design
        (vi) Geographic Information System Services
        (vii) Human Resource Services
        (viii) Insurance Claim Processing
        (ix) Legal Database
        (x) Medical Transcription
        (xi) Payroll
        (xii) Remote Maintenance
        (xiii) Revenue Accounting
        (xiv) Supports centers and
        (xv) Web-site Services.