

GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

ITE&C DEPT - IT Promotion – Andhra Pradesh Internet of Things (IoT) Policy 2016-2020 - Orders –Issued.

INFORMATION TECHNOLOGY, ELECTRONICS & COMMUNICATIONS (Promotions)
DEPARTMENT

G.O.MS.No. 3

Dated:16-03-2016

Read the following:

1. Andhra Pradesh IT Policy 2014-2020 issued vide GO Ms. No:13, of ITE&C Dept, dated:11-08-2014
2. Andhra Pradesh Electronics Policy issued vide GO Ms. No: 16, ITE&C Dept, dated, 09-09-2014

ORDER:

The new State of AP has to be practically re-imagined and reconstructed in a planned manner, if the hopes and aspirations of its people have to be fulfilled. ‘Sunrise State of India’ Government of Andhra Pradesh brought out a comprehensive Blueprint “Re-Imagining Andhra Pradesh – role of e-Governance, Electronics and IT” for development of Electronics & ICT Industry in the State.

2. Technology is the backbone of economy. The software industry has brought a paradigm change in the global information technology (IT) landscape in recent years. Among the IT segments, Innovation, Internet of Things, Social, Mobility, Analytics and Cloud services have emerged as the fastest growing verticals, which will shape the future of the IT and Electronics sector growth in the country.

3. Policies and Frameworks play a key role in helping the State realize the long-term vision. These policies have to be considered and notified, preferably together or in close succession, so as to give a holistic picture of what the State wants to achieve and how. Accordingly, a set of 18 policies and frameworks have been suggested to realize the vision. Keeping this in view, Government put in place 4 Policies -Andhra Pradesh Information Technology Policy 2014-2020, with Designated Technology Park (DTP) Scheme, Andhra Pradesh Electronics Policy 2014-2020, Andhra Pradesh Innovation & StartUp Policy and Andhra Procurement Policy with Preferential Market Access approach. These Policies are based on 4 Pillars – Infrastructure, Human Capital, Incentives and Good Governance. Through these Policies, Government aims to make at least one person e-Literate in every household, to create one entrepreneur from each and every family, to create 1 lakh employment in IT industry and 4 lakh employment in electronic sector in the State. To attract investment of Rs. 12,000 crores in IT industry, Rs. 30,000 crores in electronics industry, 100 Incubators and 5000 startups over the next 5 years.

4. INTERNET OF THINGS (IoT): The Internet of Things (IoT). IoT is the network of physical objects or "things" embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data. The Internet of Things allows objects to be sensed and controlled remotely across existing network infrastructure, creating opportunities for more direct integration between the physical world and computer-based systems, and resulting in improved efficiency, accuracy and economic benefit when IoT is augmented with sensors and actuators, the technology becomes an instance of the more general class of cyber-physical systems, which also encompasses technologies such as smart grids, smart homes, intelligent transportation and smart cities. Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within the existing Internet infrastructure. Experts estimate that the IoT will consist of almost 50 billion objects by 2020.

5. INITIATIVES OF OTHER GOVERNMENTS TO PROMOTE IoT: For Governments, the convergence of data sources on shared networks improves nationwide planning, promotes better coordination between agencies and facilitates quicker responsiveness to emergencies and disasters.

- i. In an active move to accommodate new and emerging technological innovation, the UK Government, in their 2015 budget, allocated £40,000,000 towards research into the Internet of Things. Further, countries like South Korea, Denmark, Switzerland, United States, Netherlands, Germany are aggressively promoting the IoT . A Delphi study was conducted in Finland in 2012-13to identify opportunities and challenges for innovative IOT Business models. The key finding are:
 - The most probable cases to be realized seem to be Real time waste management and Health guidance service, because examples of these have already been established.
 - Home owner's digital service to monitor and manage facilities and Traffic Data Marketplace/ Databank are likely to be realized in the near future.
- ii. Some applications have been made popular by MNCs:
 - BP have deployed IOT to monitor remote drilling operations (smart well), pipelines and succeeded in reducing their down time with real time data, cloud based analytics and decision support system.
 - Power Transmission and distribution companies found bringing visibility to an otherwise invisible network improves the ability to predict overloads and avoid outages. They also discovered actual line data reduces financial risk by truing up conventional billing and smart meter data to the actual consumption on the lines, pinpointing theft as well as metering/billing errors.
 - Adaptive signal control system coordinates all traffic signals in a traffic network based on real-time demand. Using the power of cloud computing, video detection, and wireless communication, the system quickly connects traffic intersections to optimize traffic flow in real-time.

- Smart water meters connected in wireless mesh network ensure real time, loss free transmission of data.
 - China has done interesting work on IOT for Acqua-culture with early warning and remote diagnosis technology for fish disease diagnosis to solve the problem of disease Control and prevention.
- iii. This shows that applications like Life Cycle Management of public assets, Real time waste management, Enhanced Health Service for vulnerable group of people, Reducing power transmission with real time data on supply & consumption at each node can be readily adopted with suitable incentives.

6. INDIAN SCENARIO:

- India can play a pivotal role in the development of global IoT ecosystem, both as a market and as an **IoT Hub**. To be successful in Indian markets, companies will have to adopt unique and innovative business models that could then be taken global. India could also potentially leverage its large base of IT software workforce with the upcoming electronics and semiconductor manufacturing system (being driven by “Make in India” program) and deliver innovative IoT products and solutions. India has currently has over 2 million mobile app developers and this number is expected to increase to 3 million by 2017, making in the largest base of mobile app developers in the World. While US is driving the Standards and China is driving the hardware, India could drive Apps & Business Models of IoT” .
- The draft GoI IoT Policy is under process with the objective to create an IoT Industry of US\$ 15 billion by 2020. This will also lead to increase in the connected devices from around 200 million now to over 2.7 billion by 2020. Further, there is a plan for Govt of India to develop 100 smart cities in the country for which Rs.7,060 crores has been allocated in the current budget, which enables a massive and quick expansion of IoT in the country. The various initiatives proposed to be taken under the Smart City concept and the Digital India program to set up Digital Infrastructure in the country would help boost the IoT industry.
- As per Gartner Report the total revenue generated from IoT industry would be US \$ 300 billion and the connected devices would be 27 billion by 2020. GoI assumed that India would have a share of 5-6% of global market, i.e. about US \$ 15 billion of global IoT industry.

7. ANDHRA PRADESH INTERNET OF THINGS (IoT) POLICY 2016-2020:

Keeping the above in view, Government has decided to put in place a pragmatic, proactive and first of its kind unique ANDHRA PRADESH INTERNET OF THINGS (IoT) POLICY 2016-2020, with the under-mentioned features:

1.0 VISION:

“To establish ANDHRA PRADESH as an IoT Hub by 2020, a perfect destination for IoT entities/units, help in augmenting the State Gross Domestic Product and generation of additional gainful employment opportunities to the educated youth of the State in IoT space”.

2.0 DEFINITION:

2.1 IoT: IoT is a seamless connected network system of embedded objects/devices, with identifiers, in which communication without any human intervention is possible using standard and interoperable communication protocols. IoT involves three distinct stages (i) The sensors which collect data (including identification and addressing the sensor/device), (ii) A software application/programme/product which collects and analyses this data for further consolidation and (iii) decision making and the transmission of data to the decision making server, analytical engines, actuators and big data used for decision making process

2.2. IoT Units – Any entity engaged in the activity of IoT, i.e., IoT is the network of physical objects or things " embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data. IoT entities also includes those companies/entities, with technology background, which builds up IoT Hubs/Infrastructure required for the IoT companies to come and operate in plug-and-play and walk-to-work kind of office environment of international standards. For this purpose, IoT means and includes Internet of Services (IoS) also.

2.3. Basing on the above definition, the IoT segment is broadly classified as:

1. **IoT R&D** - Companies engaging in (a) Research and development of IoT applications, Mobile apps, embedded solutions, related software etc, (b) Sensors, Hardware, devices and related equipment (c) communication technology & transmission infrastructure and related devices)
2. **IoT Lab/Assembly/Systems Integration** - Companies engaging in import, integration and packaging of sensors and devices based on the designs from IoT R&D companies and/or based on their internal design. Also, includes Companies working on integration and implementation of off-the-shelf hardware/software products/technologies, among other products/technologies, for implementation of concepts such as Smart City/Future City/Safe City, smart security, smart surveillance, smart traffic, & smart management of 5 grids, i.e., water, power, gas, road, fibre grids/utilities and 7 growth missions of Swarnandhra Pradesh – the Sunrise State of India - namely, Primary Sector Mission, Social Empowerment Mission, Knowledge and Skill Development Mission, Urban Development Mission, Industry Sector Mission, Infrastructure Mission and Service Sector Mission
3. **IoT Device & Hardware Manufacturing** - Companies engaging in design and fabrication of IoT related devices and components. OEMs/ODMs, Foundries and other fabrication units
4. **IoT Software Applications and Analytics** - Companies engaging in the development of Software Applications that support collection, transformation, loading and analytics on the data/information from IoT devices and applications
5. **IoT Hubs/Infrastructure** - IoT office space suiting to the requirements of segments 1- 4 mentioned at para 2.3 herein, along with Common Amenities such as incubation centre, skill development centers, business support services, administrative block, Employee Rest and Recreation Facilities, Education and Financial Institutions and Business Auxiliary Services, etc

3.0 OBJECTIVES:

The following Various figures and data has been considered basing on several research reports and Govt. of India publications for the demand assessment for promotion of IoT in India vis-a-vis A.P.:

		Year 2020
Global IoT Industry Market Size	USD Billion	373
Software	USD Billion	179
Hardware	USD Billion	194
<i>Source: Machina Research</i>		
India - IoT Market Size		15.00
<i>Source: Target of Govt. of India, Based on its IoT Policy, 2014</i>		
AP Share in - IoT Market		1.50
Software (@70% of total IoT Market)	USD Billion	1.05
Hardware (@30% of total IoT Market)	USD Billion	0.45
<i>Assumption: 10% share of Indian Market</i>		
Employee Productivity		
Software	INR Million per year	3.35
Hardware	INR Million per year	2.01
<i>Source: Nasscom</i>		
<i>Assumption:</i>		
<ol style="list-style-type: none"> 1. Base year of 2014, employee productivity in software is about INR 2.5 million per year and in Hardware it is about INR 1.5 million per year 2. Annual improvement in productivity is assumed at 5% per annum 		
Employment Generation		
Direct		33,300
Software		19,400
Hardware		13,900

Based on the above potential market size of the IoT and expected employment generation potential, the following conservative **objectives** with quantifiable targets have been envisaged in the AP IoT Policy 2016-2020 :

- 3.1. To achieve a sizeable IoT market – at least 10% of Indian market, i.e. **US \$ 1.5 billion.**
- 3.2 To create at least **50,000** direct employment in IoT vertical, which could generate another 1.5 lakh indirect employment in other support sectors, such as, Logistics(Transport/Administration/Finance),Hospitality(Tourism/Recreation/Leisure/Entertainment and Facilities Management (Construction/Maintenance/Services)
- 3.3. To promote **10** IoT Hubs by Government and Private participation
- 3.4 To attract **100** IoT companies/units/entities to set up their Facilities/ Operations/Development Centres in the State of Andhra Pradesh.
- 3.5. To create world-class eco system for the growth of IoT units/entities in the State- through promotion of IoT Hubs
- 3.6 To develop State-of-the- Art IoT infrastructure – both physical and technical infrastructure of international standards in all major towns in the State.

4.0 AP IoT POLICY INITIATIVES :

In line with the Blue Print of Govt of AP and the previous IT, Electronics and Innovation Policies framed by Government thereon, the basic structure of AP IoT Policy is based on 4 Pillars – Infrastructure, Human Capital, Incentives and Governance.

4.1 INFRASTRUCTURE:

4.1.1 Promotion of IoT HUBs/IoT Software Development Centres/IoT R&D Centres/IoT Manufacturing facilities/IoT campuses:

4.1.2. It is proposed to create or promote at least 10 IoT Hubs in major Towns in the State either by Government or through private efforts.. An IoT Hub shall necessary have all or any of the components specified in para **2.3** of this Policy, along with common amenities/facilitation for the IoT Hub, namely, IoT Lab/Assembly units, IoT Electronic Design and Manufacturing Units, IoT Software development units, etc

The IoT Hub shall have World class physical & social infrastructure, proximity to the transportation hubs (including Railway sidings, Ports, Airports), high-power electric supplies, high-end communications cables, large-volume water supplies to offer cost effective facilities;

4.1.3. IoT Hubs created by Government shall be based on PPP model as per the guidelines of AP Infrastructure Development Act.

4.1.4. For IoT Hubs created by private entities, with their own financial resources, the AP Infrastructure Development Act does not apply

4.1.5. An entity intending to set up a unit engaged in all or any of the activities specified in clause 2.3 of this Policy, along with common amenities/facilitation for the IoT Hub shall be eligible for allotment of land subject to the following conditions:

- I. Shall be in existence for at least one year
- II. Shall have filed Income Tax Returns in India or abroad for the last 2 financial years.
- III. Shall have necessary means of finance either through internal accruals or through established financial funding pattern to undertake, complete and make operational of IoT Hub
- IV. Shall possess firm commitment letters of at least 10 IoT companies intending to take space - either built up space or serviced plots in the IoT Hub.
- V. Shall create a fresh employment of **250 per acre of land allotted**. (with at least 50% of AP origin/domicile persons) within 3 years from the date of taking over possession of land, failing which the land allotment agency, i.e., AP Industrial Infrastructure Development Corporation (APIIC) shall resume the back the land allotted with structures, thereon from the said IoT company or subsidiary of an IoT entity. For the purposes of this provision of employees from AP, a person of AP origin from any of the 13 districts of Andhra Pradesh, is defined and as specified below:

- (a) Resident of the State of AP,
- (b) Domiciled in the State of AP,
- (c) Born in the State of AP.
- (d) Studied in School/College/University in the State of AP for four years continuously.
- (e) A person either of whose parents was born or attended School/ College/ University in State of AP or was domiciled in AP.

A resident of the State of AP is defined as a person satisfying any of the following criteria:

- (a) Whose name finds place in electoral roll anywhere in Andhra Pradesh,
- (b) Whose name finds place in the citizens data maintained by the Revenue Department and is assigned with a multipurpose identity card no. (also termed SSID/Adhar No),
- (c) Who holds a ration card/telephone connection/gas connection in his/her name or in the name of any member of his/her family and
- (d) Who is able to furnish any other proof of residents like drawl of monthly salary through bank branch in any of the 13 districts of Andhra Pradesh.

- VI. Shall complete, commission, up and running of the IoT Hub within **3 years** from the date of taking over possession of the allotted land, failing which APIIC shall resume the back the land allotted with structures, thereon from the said IoT entity.
- VII. The Consultative Committee on IT Industry(CCITI) constituted as per IT Policy shall only recommend the eligible extent of land for IoT entities. APIIC shall be the sole authority to allot/grant land at available location, to the IoT entities, on whichever terms and land cost, as they deem fit and as appropriate, following the Government Rules, applicable for this purpose.

5.0. INCENTIVES:

5.1 Convergence of IT & Electronics with the basic sectors of the Society is the presence of a new and sunrise vertical, i.e., The Internet of Things (IoT). As such, taking in to consideration all the

Incentives listed under Andhra Pradesh IT Policy, issued vide GO Ms. No:13, dated:11-08-2014 and Andhra Pradesh Electronics Policy issued vide GO Ms. No: 16 dated, 09-09-2014 of ITE&C Dept, GoAP, with the amendments thereon, and taking into consideration the incentives offered by other States in the country, the following Fiscal Non-Fiscal shall be made applicable to IoT entities as per eligibility and applicability

5.1.2 NON - FISCAL INCENTIVES (Applicable to all IoT entities)

- IoT entities and non-hazardous electronic hardware manufacturing entities to be exempt from the purview of the AP Pollution Control Act, except in respect of power generation sets, subject to obtaining certain statutory clearances to be issued by the Andhra Pradesh Pollution Control Board (APPCB). There is a time limit prescribed for the issue of such clearances by the APPCB under the "Ease of doing business".
- IoT entities to be **exempt from inspections under the following Acts** and the Rules framed there under, barring inspections arising out of specific complaints. The IoT entities are permitted to file self-certifications, in the prescribed formats.
 - i. The Factories Act 1948
 - ii. The Maternity Benefit Act 1961
 - iii. The AP Shops & Establishments Act 1988
 - iv. The Contract Labour (Regulations & Abolition) Act 1970
 - v. The Payment of Wages Act, 1936
 - vi. The Minimum Wages Act 1948
 - vii. The Employment Exchanges (Compulsory Notification of Vacancies) Act 1959
- General permission to be made available for 3-shift operations with women working in the night, for IoT entities, subject to the condition that such IoT entities take the prescribed precautions in respect of safety and security of employees.
- IoT to be declared as essential service under **AP Essential Services Maintenance Act**.

5.1.3. FISCAL INCENTIVES:

The Matrix on fiscal incentives available for each IoT Segment referred to in para 2.3 of this Policy is as follows

Segment	Applicable Fiscal Incentives*
1. IOT R&D	<ul style="list-style-type: none"> • Lease Rentals: Reimbursement of 50% of Lease Rentals paid to the IoT Hub/ infrastructure provider, for leasing IoT office space, <i>subject to a maximum of Rs.10 lakhs per annum</i>, for a period of THREE years, linked to the employment generated @ 100sft per employee. • Reimbursement of 25% of Bandwidth/Connectivity (Internet charges) paid to Internet Service Providers, <i>subject to a maximum of Rs.15 lakhs per annum</i>, for a period of THREE years from the date of starting commercial production/operations. • Applicability of Industrial Power Category Conversion, subject to the condition that meter/power service connection shall be in the name of respective IoT entity. • Reimbursement of fixed power cost to IoT entity @ Re.1/- per unit consumed for a period of 5 years from the date of commencement of commercial operations subject to the condition that meter/power service connection shall be in the name of the respective IoT entity.

	<ul style="list-style-type: none"> • 100% Reimbursement from Electricity duty, to IoT entity, for a period of 5 years, subject to the condition that meter/power service connection shall be in the name of the IoT entity. • 100% reimbursement of the Stamp Duty, Transfer Duty and Registration Fee paid by the respective IoT entity to the Sub /Registrar, Registration & Stamps Department, on rental/lease premium/ lease deeds on the first transaction and 50% thereof on the second transaction(expansion). • Reimbursement of Patent Filing Costs & Quality Certifications – actual expenditure incurred on the same subject to a maximum of Rs. 5 lakh in each case . • Skill Up gradation & Training: 50% reimbursement of the cost incurred subject to a maximum of Rs.10,000/- per employee for providing skill gap trainings to the employees of AP domicile • Capital/Investment Subsidy: 10% of total investment upto subject to a maximum of Rs.3 crores. (such as building, plant, machinery, testing equipment, etc)
<p>2. IoT Lab/Assembly/System s Integration</p>	<ul style="list-style-type: none"> • Lease Rentals: Reimbursement of 50% of Lease Rentals paid to the IoT Hub/ infrastructure provider, for leasing IoT office space, <i>subject to a maximum of Rs.10 lakhs per annum</i>, for a period of THREE years, linked to the employment generated @ 100sft per employee. • Reimbursement of 25% of Bandwidth/Connectivity (Internet charges) paid to Internet Service Providers, <i>subject to a maximum of Rs.15 lakhs per annum</i>, for a period of THREE years from the date of starting commercial production/operations. • Applicability of Industrial Power Category Conversion, subject to the condition that meter/power service connection shall be in the name of respective IoT entity. • Reimbursement of fixed power cost @ Re.1/- per unit consumed for a period of 5 years from the date of commencement of commercial operations subject to the condition that meter/power service connection shall be in the name of the respective IoT entity • 100% Reimbursement from Electricity duty, for a period of 5 years, subject to the condition that meter/power service connection shall be in the name of the respective IoT entity • 100% reimbursement of the Stamp Duty, Transfer Duty and Registration Fee paid by the respective IoT entity to the Sub /Registrar, Registration & Stamps Department, on rental/lease premium/ lease deeds on the first transaction and 50% thereof on the second transaction(expansion). • Interest Rebate: 5% for a period of 7 years (subject to maximum of Rs.1 crore per annum) • Capital/Investment Subsidy: 10% of total investment upto subject to a maximum of Rs.2 crores. (such as building, plant, machinery, testing equipment, etc) • VAT/ CST Reimbursement: 100% tax reimbursement on VAT/CST for a period of 10 years subject to a maximum of

	100% of fixed capital investment other than land (such as building, plant, machinery, testing equipment, etc)
3. IOT Device and Hardware Manufacturer	<ul style="list-style-type: none"> • Lease Rentals: Reimbursement of 50% of Lease Rentals paid to the IoT Hub/ infrastructure provider, for leasing IoT office space, <i>subject to a maximum of Rs.10 lakhs per annum</i>, for a period of THREE years, linked to the employment generated @ 100sft per employee. • Reimbursement of 25% of Bandwidth/Connectivity (Internet charges) paid to Internet Service Providers, <i>subject to a maximum of Rs.15 lakhs per annum</i>, for a period of THREE years from the date of starting commercial production/operations. • Applicability of Industrial Power Category Conversion, subject to the condition that meter/power service connection shall be in the name of respective IoT entity. • Reimbursement of fixed power cost @ Re.1/- per unit consumed for a period of 5 years from the date of commencement of commercial operations subject to the condition that meter/power service connection shall be in the name of the respective IoT entity • 100% Reimbursement from Electricity duty, for a period of 5 years, subject to the condition that meter/power service connection shall be in the name of the respective IoT entity • 100% reimbursement of the Stamp Duty, Transfer Duty and Registration Fee paid by the respective IoT entity to the Sub /Registrar, Registration & Stamps Department, on rental/lease premium/ lease deeds on the first transaction and 50% thereof on the second transaction(expansion). • Skill Up gradation & Training: 50% reimbursement of the cost incurred subject to a maximum of Rs.10,000/- per employee for providing skill gap trainings to the employees of AP domicile. • Interest Rebate: 5% for a period of 7 years (subject to maximum of Rs.1 crore per annum) • Capital/Investment Subsidy: 10% of total investment upto subject to a maximum of Rs.5 crores. (such as building, plant, machinery, testing equipment, etc). • Subsidy on Cleaner/Greener Production: 25% subsidy on cleaner/ green production measures limited to Rs.10 Lakhs. • VAT/ CST Reimbursement: 100% tax reimbursement on VAT/CST for a period of 10 years subject to a maximum of 100% of fixed capital investment other than land (such as building, plant, machinery, testing equipment, etc)
4. IoT Software Applications & Analytics	<ul style="list-style-type: none"> • Lease Rentals: Reimbursement of 50% of Lease Rentals paid to the IoT Hub/ infrastructure provider, for leasing IoT office space, <i>subject to a maximum of Rs.10 lakhs per annum</i>, for a period of THREE years, linked to the employment generated @ 100sft per employee. • Reimbursement of 25% of Bandwidth/Connectivity (Internet

	<p>charges) paid to Internet Service Providers, <i>subject to a maximum of Rs.15 lakhs per annum</i>, for a period of THREE years from the date of starting commercial production/operations.</p> <ul style="list-style-type: none"> • Applicability of Industrial Power Category Conversion, subject to the condition that meter/power service connection shall be in the name of respective IoT entity. • Reimbursement of fixed power cost @ Re.1/- per unit consumed for a period of 5 years from the date of commencement of commercial operations subject to the condition that meter/power service connection shall be in the name of the respective IoT entity • 100% Reimbursement from Electricity duty, for a period of 5 years, subject to the condition that meter/power service connection shall be in the name of the respective IoT entity • 100% reimbursement of the Stamp Duty, Transfer Duty and Registration Fee paid by the respective IoT entity to the Sub /Registrar, Registration & Stamps Department, on rental/lease premium/ lease deeds on the first transaction and 50% thereof on the second transaction(expansion). • Skill Up gradation & Training: 50% reimbursement of the cost incurred subject to a maximum of Rs.10,000/- per employee for providing skill gap trainings to the employees of AP domicile. • VAT/ CST Reimbursement: 100% tax reimbursement on VAT/CST for a period of 10 years subject to a maximum of 100% of fixed capital investment other than land (such as building, plant, machinery, testing equipment, etc)
5. IOT Hubs and Infrastructure	<ul style="list-style-type: none"> • Applicability of Industrial Power Category Conversion, subject to the condition that meter/power service connection shall be in the name of respective IoT entity. • Reimbursement of fixed power cost @ Re.1/- per unit consumed for a period of 5 years from the date of commencement of commercial operations subject to the condition that meter/power service connection shall be in the name of the respective IoT entity • 100% Reimbursement from Electricity duty, for a period of 5 years, subject to the condition that meter/power service connection shall be in the name of the respective IoT entity • 100% reimbursement of the Stamp Duty, Transfer Duty and Registration Fee paid by the respective IoT entity to the Sub /Registrar, Registration & Stamps Department, on rental/lease premium/ lease deeds on the first transaction and 50% thereof on the second transaction(expansion). • 50% Reimbursement of Property Tax proportionate and limited to the built up IoT office space, rented/leased to an IoT unit/entity • 50% Reimbursement of Insurance Premium paid towards the insurance of the Building, proportionate and limited to the built up IT office space rented/leased to the IoT units/entity. • 50% Reimbursement of facility maintenance charges paid to the Facility Management Companies, proportionate and limited to the built up IT office space rented/leased to the IoT

	<p>units/entities, <i>subject to a maximum of Rs.5 lakhs per annum.</i></p> <ul style="list-style-type: none"> • 50% Reimbursement of one time cost creating common infrastructure like Conference hall with equipment such as projection/audio/video systems, Server room, Cafeteria etc. for the entire IOT Hub/IoT facility, <i>subject a maximum of Rs.10,00,000/-</i> . • Reimbursement of 10% of the total interest paid on the loan obtained from any financial institution, for Construction of IoT Hub/IoT facilities for initial two years subject to a maximum of Rs. 5 lakhs.
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(* Illustrative but not exclusive and the applicability/non-applicability depends on the merits of each case and as per recommendations of CCITI).

5.1.4. The Government may on the recommendations of the CCITI, relax or prescribe one or more conditions, with respect of grant of any incentive under this policy or w.r.t allotment of land by APIIC, subject to the approval of the Council of Ministers.

5.1.5. PREFERENTIAL MARKET ACCESS (PMA) to IoT entities: The Preferential Market Access Policy of Govt of AP for procurement of IoT products/services by the Government of Andhra Pradesh, for its various requirements/Departments, is made applicable and is based on the PMA guidelines issued vide GO Ms. No:22, dated:28-11-2015 of ITE&C Dept, GoAP.

5.1.6. Andhra Pradesh Electronic & IT Agency (APEIA) is the nodal agency for attending to all the incentives and infrastructure requirements of IoT companies in a transparent, time-bound, hassle-free manner and to the satisfaction of IoT industry.

6.0. HUMAN CAPITAL:

6.1. Setting up of IoT Centres of Excellence – Andhra Pradesh Innovation Society (APIS) shall set up IoT Centres of Excellence, in prominent locations in the State.

6.2 IoT Innovation Fund: Appropriate Budgetary resources shall be made available for promotion of Innovation and R&D in IoT as per AP Innovation & Startup Policy and shall be implemented by the AP State Innovation Society.

6.3. Academia - Inculcating the habit and embedding the idea of IoT and innovation among all the citizens in every aspect of economic activity is essential for promoting the culture of innovation in the people. This needs to be achieved through strong educational support to make Andhrapreneurs as innovators and *techno-preneurs in IoT*. The Government, as mentioned in the AP Innovation & Startup Policy 2014-2020, issued vide GO Ms. No:17, dated :09-09-2014, shall therefore, continue to work with universities, educational institutions and the industry, by implementing the following initiatives to provide pre-trained manpower in emerging technologies and to foster a culture of IoT entrepreneurship :

i. **Update Syllabus:** The Universities will be advised to change the course curriculum to be in tune with the emerging technologies and align to the requirements of the Industry, and to introduce courses in IoT entrepreneurship development through incubators.

ii. **Faculty Up gradation:** A special scheme of faculty up gradation shall be introduced. The Government would support enhancing infrastructure at existing universities to train the faculty for promotion of innovation in IoT.

iii. **Mandatory apprenticeship:** All educational institutions offering under-graduate courses in IoT areas shall implement a mandatory scheme of internship/ apprenticeship in the last year of the course in association with the industry.

iv. **Credits to MOOCs and insertion as electives:** The Universities will be advised to give credits to the students successfully completing notified online courses (MOOCs) and their insertion as electives.

v. **Gap Year - concept of Student Entrepreneur in Residence:** Universities will be advised to introduce the concept of Student Entrepreneur in Residence. Outstanding students who wish to pursue entrepreneurship can take a break of one year, after the first year, to pursue entrepreneurship full time. This may be extended to two years at the most and these two years would not be counted for the time for the maximum time for graduation.

6.3.1. For this purpose, an Academic Advisory Board shall be constituted with appropriate composition of members drawn from Industry, Academia, Technocrats, Government, etc.

6.4. In addition to the above, the Government, in consultation with the Academic Advisory Council and concerned Ministries/Departments of Govt of India, shall also implement the following initiatives for augmenting the human capital for fostering the growth of IoT :

- To create an IoT Education and Awareness program for developing skill sets for IoT at all levels.
- Introduction of IoT Curriculum at M.Tech & B.Tech level and Research Activity/PhD. certificate course in IoT, 6-weeks/ 2-weeks training program.
- To setup norms for accreditation of all such courses relating to IoT.
- Awareness Program: Under this activity, IoT information will be widely propagated in a planned manner through Publish articles etc. in leading journals, Development of audio & video material for awareness through social media, Participation in conferences for industry /educational Institutions, Promoting workshops for working level executives from industry & faculty form academic institutions.
- Introduce cross country pacts for IoT education exchange Programs.
- To support faculty and students for participation in global academic conferences for presenting papers on IoT.
- Creation of Young faculty chairs. Young faculty chairs (posts) should be created in academic institutions. These young faculties become the bridge between academia and industry and identify the areas in which IoT skills need to be created after regular consultation with industry.
- Creation of a body including Academia, industry and associations to set up test beds / labs for IoT design, development and testing. This will help academia to share specific knowledge to industry and also the academia will get more conversant with the recent developments in industry relating to IoT.
- To draw together and form a panel of experts from academia, govt. and industry for research and projects related to IoT.

6.5. Adoption of Suo-Moto IoT proposals/products for implementation and IoT Awards: The eligible IoT proposals/products for suo-moto adoption and implementation by Government of AP Departments and Awards to innovative IoT products shall be as per the terms & conditions of: G.O.Rt.No:100; dated: 17/07/2015 of ITE&C Dept. AP State Innovation Society shall be the nodal implementing Agency for this purpose.

6.6. Government shall take up the training of students, in soft skills and domain knowledge, for the 3rd year and 4th year Engineering/Degree colleges in IoT vertical and make them Industry ready,

through identified Skill Development partners, such as, NASSCOM, prominent IT/Electronic /IoT entities/Associations, Private Overseas Training/Placement entities/Institutes, Institute for Electronic Governance (IEG) of ITE&C Dept of GoAP, etc.

6.7. All the initiatives mentioned above pertaining to Human Capital in relation to the IoT shall be attended proactively by AP State Innovation Society.

7.0. GOVERNANCE:

As part of transparent and hassle free implementation of IoT Policy, the following mechanisms shall be put in place:

7.1 **CCITI (Consultative Committee on IT Industry) – ‘Consultative Committee on the IT Industry’** already constituted under IT Policy, with the representatives of industry, Government, Academia and the other stakeholders, shall administer the incentives meant for promotion of IoT Industry, in a speedy, time-bound and transparent manner. CCITI may co-opt any other domain specific subject expert/specialist as Member as and when required.

7.1.2. The CCITI shall act as a single window for granting all the incentives announced through this AP IoT Policy .

7.1.3. The terms of reference of CCITI are: (a) To grant various incentives on examination of applications made by them including recommending allotment of lands to the IoT entities. (b) To resolve the problems in implementation of the IoT Policy and cause necessary through implementing agencies, such as APIIC/Urban Development Authorities,/DISCOMs/Municipal Corporations, for administration of various incentives sanctioned, and for speedy realization of the goals set forth in the AP IoT Policy,. (c) To prescribe the procedures and to issue guidelines and clarifications in implementation of the AP IoT Policy,

7.1.4 The CCITI can recommend/approve/reject/defer any application for incentives at its sole discretion.

7.2 **Single-Window/Help Desk System:** A highly empowered ‘Single Window Clearance Unit’ will be created and operationalized for granting approvals & clearances for setting up New IoT Units/entities and in the State. It would be supported by state-of-the-art centralized help desk/call centre on 24x7 basis, with Escort Officers **for handholding of each IoT entity/unit**. The objective of this Help Desk System, would be to (a) reduce time to set up business and (b) reduce cost of doing business.

7.3 **Time-bound approvals:** The following procedural reform would be undertaken with an aim to provide approvals to the IoT entities / investors **within 3 weeks**,. through a Single Desk Portal of GoAP with (a). Integrated Online Application for all permissions,(b)). Integrated Online Application for all Incentives (c) Escort Officer to be assigned the responsibility for hand holding for getting approvals and (d) escalation at various levels and regular monitoring.

7.4 **APIIC to be Industrial Area Local Authority (IALA):** All IoT Hubs/Areas/allotted lands/IoT Lay Outs/Zones/Corridors, including Electronic Manufacturing Clusters (EMCs) and ITIR delineated processing areas of APIIC in the State shall be accorded the status of Industrial Area Local Authority (IALA) immediately so that the execution and maintenance of IoT Industrial areas shall be effectively planned, executed and implemented by APIIC in the interest of promotion of IoT Sector. All statutory clearances to IoT Parks/IoT Campuses/IoT Hubs constructed by IoT Infrastructure Companies/builders/developers and IoT Companies/Units for their own use, on lands allotted by APIIC in their IALA, would be given by APIIC. CCITI shall only recommend the eligible extent of land for IoT entities. However, APIIC shall be the sole authority to allot/grant land to the IoT entities on whichever terms and land cost, as they deem fit and as appropriate, following the Government Rules, applicable for this purpose.

8. This AP IoT Policy 2016-2020 is valid for a period of 4 years from the date of its notification and the IoT entities covered under this Policy shall be compliant with the Cyber Laws of India.

9. The Companies availing benefits / incentives under the IoT Policy cannot claim benefits and incentives under the other policies.

10. ITE&C Department shall issue appropriate Implementation/Operational Guidelines with simplified on line application pro forma and procedure for claiming the incentives and initiatives outlined in this AP IoT Policy 2016-2020.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

G.S.PHANI KISORE
SPL.SECRETARY TO GOVERNMENT

To

All the Departments of Secretariat

The Commissioner and I.G., Stamps and Registration, Hyderabad

The Vice Chairman and Managing Director, APIIC, Hyderabad

The Commissioner, Industries, Andhra Pradesh

The Executive Director, APIIC, Andhra Pradesh

The Commissioner, Information and Public Relations, Andhra Pradesh

The Member Secretary, A.P. Pollution Control Board, Andhra Pradesh

The Chairman & MD, AP TRANSCO

The Managing Director, APCPDCL/EPCPDCL /SPCPDCL/NPCPDCL

The Commissioner, Labour, Andhra Pradesh

The Vice Chairman, VUDA/TUDA/VGTMUDA

All the District Collectors & Magistrates, AP

All the Municipal Commissioners, AP,

The Development Commissioner, VSEZ, Visakhapatnam

The Director, STPI, Andhra Pradesh, Hyderabad

The Regional Director, NASSCOM, Andhra Pradesh,

The President, VITA, Visakhapatnam,

The President, RITPA, Visakhapatnam

The President, GITA, Kakinada

The President, KITA, Vijayawada

The Regional Director, Confederation of Indian Industry, Visakhapatnam.

Copy to: The Secretary to GOI, Department of Electronics & Information Technology (DeitY)

The Ministry of Communication & Information Technology, New Delhi

The Chief Minister's Office/Chief PRO to C.M.

The Chief Commissioner, Customs & Central Excise, Hyderabad

The OSD to Minister for Information Technology, Andhra Pradesh

The PS to Minister for Finance, Hyderabad

The PS to Minister for Major Industries, Andhra Pradesh

The PS to Minister for Revenue, Andhra Pradesh

The PS to Minister for MA&UD, Andhra Pradesh

The PS to Minister for Energy, Andhra Pradesh

The PS to Minister for Labour, Andhra Pradesh

The PS to Spl CS Planning, Andhra Pradesh

The PS to PFS, Andhra Pradesh

The PS to Principal Secretary to CM Andhra Pradesh

The PS to Chief Secretary to Government of Andhra Pradesh

//FORWARDED BY ORDER//

SECTION OFFICER