

Annual Procurement Plan

A. Items to be procured in Year-1

#	Name of items	Specifications	Trade/Course for which it is required	Total Required	Rate / Unit (in INR lakh)	Total (in INR lakh)	Method of Procurement (e.g. Shopping/Competitive Bidding)
1	3D Printer with Continuous Filament Fabrication (CFF)	Build Volume -320mm x 132mm x 154mm with z resolution – 100 microns Software – Cloud based slicing software like Eiger/ Cura or similar software for printing composite materials	Additive manufacturing Technician 3D Printing	1 No.	1.5	1.5	Shopping / National Competitive Bidding/GEM
2	3D Printer-FFF (Fused Filament Fabrication)	200x300x200 PLA support	Additive manufacturing Technician 3D Printing	8 No.	2.0	16.0	Shopping / National Competitive Bidding/GEM
3	3D Printer with Direct Light Processing	Build Volume – 100mm x50mm x 150 mm or better with dynamic Z resolution- 0.0001 inches-0.003 inches Software – Prefatory&Magics	Additive manufacturing Technician 3D Printing	1 Nos.	12.0	12.0	Shopping / National Competitive Bidding/GEM

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technology (DLP)	Light Source - Industrial UV LED					
4 Scanner for Reverse Engineering	Optical scanner tripod mounted with turn table and necessary accessories, accuracy upto 100 microns	Additive manufacturing Technician 3D Printing	1No	3.4	3.4	Shopping / National Competitive Bidding/GEM
5 Software for Reverse Engineering- (Integrated with CAD)	Processed, automatic alignment, auto-region, segmenting, making sketches from the mesh data, prepare parametric 3D model from mesh data using Solid Modeling & surfacing techniques should integrate directly with single window	Additive manufacturing Technician 3D Printing	1No	10.0	10.0	Shopping / National Competitive Bidding/GEM
6 Sensor Kit	Sensor Kit- <ul style="list-style-type: none"> > Mounting Plate > Power Distribution Box > Counter Box > Indication Box > Material Box > Inductive Sensor > Capacitive Sensor > Magnetic Sensor > Ultrasonic Sensor 	Additive manufacturing Technician 3D Printing	1No.	1.0	1.0	Shopping / National Competitive Bidding/GEM
7 Computer (PC)	Latest configurations and Internet connection with standard operating system and standard word processor and worksheet software	Additive manufacturing Technician 3D Printing	10 no.	0.8	8.0	Shopping / National Competitive Bidding/GEM
8 Pillar Type drilling machine	Sensitive 0-20mm capacity, with swivel table motorized with chuck and key	Additive manufacturing Technician 3D Printing	1No	0.5	0.5	Shopping / National Competitive Bidding/GEM

9	LCD Projector		Additive manufacturing Technician 3D Printing	1No	0.8	0.8	Shopping / National Competitive Bidding/GEM
10	Software	MS-office latest version, 3D CAD with latest Licensed version with SWIFT technology, support minimum 24 data translators, Should bidirectional associative, , should facilitate the Additive Manufacturing technician with latest trends in Engineering costing which should be built in the 3D software, 3D software should have facility for scan to 3D operation, 3D software should support single window integration for design & topology optimization, should have facility to prepare "First Article Inspection Reports" for QC process.	Additive manufacturing Technician 3D Printing	1No	8.0	8.0	Shopping / National Competitive Bidding/GEM
11	Server	True Dedicated Server with Server OS and backup Device	Additive manufacturing Technician 3D Printing	1No	3.0	3.0	Shopping / National Competitive Bidding/GEM
12	Trainees tool kit	Tool Kit- Mini drafter, try square, set square, caliper etc	Additive manufacturing Technician	16No	0.05	0.8	Shopping / National Competitive Bidding/GEM
13	Draughtsman Drawing Tool Box	instrument box containing: compasses with pencil point, point driver, interchangeable, Divider pen point interchangeable, divider spring bow pen, Spring bow lengthening bar,	3D Printing	16No	0.10	1.6	Shopping / National Competitive Bidding/GEM

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		pen drawing liner, screw driver Instrument, tube with lead.					
14	Other tools having value less than 10,000	Miscellaneous	Additive manufacturing Technician 3D Printing	as required	2.0	2.0	Shopping / National Competitive Bidding/GEM
15	Laser Printer A3 Size	A3 Size	Additive manufacturing Technician 3D Printing	01No	1.5	1.5	Shopping / National Competitive Bidding/GEM
16	Measuring Instruments	Digital Vernier Caliper Outside, Height Micrometer, Digital Micrometer, Digital Vernier Caliper Universal ets	Additive manufacturing Technician 3D Printing	01No each	0.50	0.5	Shopping / National Competitive Bidding/GEM
17	Books and training material	-	Additive manufacturing Technician 3D Printing	-	-	0.5	Shopping
18	Miscellaneous Items	-	-	-	-	1.0	Shopping
Total						72.1	

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B. Items to be procured in Year-2

#	Name of items	Specifications	Trade/Course for which it is required	Total Required	Rate / Unit (in INR lakh)	Total (in INR lakh)	Method of Procurement (e.g. Shopping/Competitive Bidding)
1	Trainees Tool Kit	Containing Screwdriver, Pliers, Soldering Iron, Digital Multimeter and soldering Iron etc	IoT Technician Smart City	01	0.25	0.25	Shopping / National Competitive Bidding/GEM
2	Shop Tools and Instruments	Containing Vice, Spanner Set, Files, Hammer, Scissors, Hand Drill machine etc.	IoT Technician Smart City	02	0.50	1.0	Shopping / National Competitive Bidding/GEM
3	DC Regulated Power Supplies	0-30 Volts, 2Amps, Constant Voltage and Current controller	IoT Technician Smart City	2	0.11	0.22	Shopping / National Competitive Bidding/GEM
4	Function generator and Oscilloscope	Dual channel, 25Mhz	IoT Technician Smart City	2	0.8	1.6	Shopping / National Competitive Bidding/GEM
5	Spectrum Analyzer	3.2Ghz, with tracking facilities	IoT Technician Smart City	1	1.5	1.5	Shopping / National Competitive Bidding/GEM
6	Electrical Safety Trainer	Demonstration facility of various features of electrical safety	IoT Technician Smart City	1	0.25	0.25	Shopping / National Competitive Bidding/GEM

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7	Analog component and Digital IC Trainer	Demonstration of working like diode, transistor, MOSFET, and Digital ICs	IoT Technician Smart City	1	0.40	0.40	Shopping / National Competitive Bidding/GEM
8	IT Workbench for Computer Hardware and Networking	Equipped with different parts of computer and networking, each element should be detachable	IoT Technician Smart City	1	1.0	1.0	Shopping / National Competitive Bidding/GEM
9	SMD Technology Kit	Various smd component like resistor, capacitor, diode with readymade solder pads	IoT Technician Smart City	1	0.30	0.30	Shopping / National Competitive Bidding/GEM
10	Microcontroller Kit	Input Interface Switch, Matrix Keypad, ASCII Keypad, LCD Display, ADC and DAC converter, DC and Stepper Motor Control with PC Interface	IoT Technician Smart City	1	0.30	0.30	Shopping / National Competitive Bidding/GEM
11	Sensor Trainer Kit	With following sensors- Air Humidity and Temperature, RTD, Atmospheric Pressure, Smoke Detector, Photo	IoT Technician Smart City	2	0.70	1.40	Shopping / National Competitive Bidding/GEM

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		Sensor, Capacitive Displacement, LVDT etc					
12	Microcontroller Training Platform	Platform for AVR, PIC, ARM and Arduino	IoT Technician Smart City	1	1.0	1.0	Shopping / National Competitive Bidding/GEM
13	Internet of Things Explorer	64bit ARM Processor, 32GB Memory, with open source operating system and display unit, connectivity with Zigbee and USB interface	IoT Technician Smart City	1	2.0	2.0	Shopping / National Competitive Bidding/GEM
14	Field Interface and Protocol Simulation Kit	Contain computer, simulation software and IoT Protocol Simulation	IoT Technician Smart City	1	2.0	2.0	Shopping / National Competitive Bidding/GEM
15	Solar Power Lab and PV Module analyzer	Solar PV Module with interactive software and microcontroller based measurement system	IoT Technician Smart City	1	0.70	0.70	Shopping / National Competitive Bidding/GEM
16	Wireless Communication modules	Interfacing facility with - RFID card reader, Finger Print, Zigbee,	IoT Technician Smart City	1	0.30	0.30	Shopping / National Competitive Bidding/GEM

		GPS, GSM, Bluetooth and WiFi					
17	Sensor for Smart environment	Air temperature sensor, Air humidity Sensor and Atmospheric Pressure sensor in IP65 packaging	IoT Technician Smart City	1 each	0.20	0.20	Shopping / National Competitive Bidding/GEM
18	Smart Parking Sensor	Containing CCTV, Motion Sensor, RFID, Relay and hooter etc	IoT Technician Smart City	1	0.15	0.15	Shopping / National Competitive Bidding/GEM
19	Sensor for waste water monitoring and management	Conductivity Sensor, PH sensor, Cupric and Silver sensor, flow sensor etc	IoT Technician Smart City	1	0.25	0.25	Shopping / National Competitive Bidding/GEM
20	Weather Monitoring System	Temperature, Air Speed, Atmospheric pressure sensors and solar radiation kit	IoT Technician Smart City	1	1.0	1.0	Shopping / National Competitive Bidding/GEM
21	Smart Solar Street Lightening Training Platform	Microcontroller based connectivity using WiFi, led light, solar panel with battery, charging facility and demonstration	IoT Technician Smart City	1	0.30	0.30	Shopping / National Competitive Bidding/GEM

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		facility					
22	Smart Transportation monitoring system	GPS sensor with GSM integration and monitoring panel with software	IoT Technician Smart City	1	2.0	2.0	Shopping / National Competitive Bidding/GEM
23	Sensor for smart building	CCTV camera, Motion sensor, Smoke sensor, Fire, LPG, Air Quality sensor all with Zigbee protocol and monitoring station	IoT Technician Smart City	1	2.0	2.0	Shopping / National Competitive Bidding/GEM
24	IoT Data Acquisition System	Connectivity to IBM/Microsoft Cloud, Isolated channels and power supply	IoT Technician Smart City	1	1.0	1.0	Shopping / National Competitive Bidding/GEM
25	IoT Edge computing Device	Embedded SCADA for 500 Tags with isolated channels and power supply	IoT Technician Smart City	1	1.0	1.0	Shopping / National Competitive Bidding/GEM
26	Cloud based IoT SCADA	1000tag license for cloud based SCADA to connect IoT Devices.	IoT Technician Smart City	1	0.50	0.50	Shopping / National Competitive Bidding/GEM
28	Books and Other learning material			-	-	1.0	Shopping
29	Miscellaneous			-	-	1.38	Shopping
Total						25.0	

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C. Items to be procured in Year-3

#	Name of items	Specifications	Trade/Course for which it is required	Total Required	Rate / Unit (in INR lakh)	Total (in INR lakh)	Method of Procurement (e.g. Shopping/Competitive Bidding)
1	Learning Material	Books, CDs & Drawing Equipments	All Trades	-	-	5.00	Shopping / National Competitive Bidding/GEM
2	Misc	Facilities for trainees	All Trades	-	-	10.00	Shopping / National Competitive Bidding/GEM
3	ICT Infrastructure	-	All Trades	-	-	5.00	Shopping / National Competitive Bidding/GEM
4	Furniture	-	-	-	-	1.00	Shopping / National Competitive Bidding/GEM
Total						21.00	

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Items to be procured in Year-4

#	Name of items	Specifications	Trade/Course for which it is required	Total Required	Rate / Unit (in INR lakh)	Total (in INR lakh)	Method of Procurement (e.g. Shopping/Competitive Bidding)
1	Learning Material	Books, CDs & Drawing Equipments	All Trades	-	-	11.00	Shopping / National Competitive Bidding/GEM
2	Misc	Facilities for trainees	All Trades	-	-	5.00	Shopping / National Competitive Bidding/GEM
Total						16.00	



E. Items to be procured in Year-5

#	Name of items	Specifications	Trade/Course for which it is required	Total Required	Rate / Unit (in INR lakh)	Total (in INR lakh)	Method of Procurement (e.g. Shopping/Competitive Bidding)
1	Learning Material	Books, CDs & Drawing Equipments	All Trades	-	-	4.00	Shopping / National Competitive Bidding/GEM
2	Misc	Facilities for trainees	All Trades	-	-	1.00	Shopping / National Competitive Bidding/GEM
Total						6.00	

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