

[CSIR-Central Building Research Institute, Roorkee]

PROCUREMENT PLAN*

(*Please read the note given at the end)

A FOR THE FINANCIAL YEAR 2024-25**A (a) EQUIPMENT****(i) Equipment: Out of CSIR Infra Grant**

Sr. No.	Name Category of Equipment/ Vehicle Item	Quantity (Nos.)	Approximate Cost (Rs. In Lakhs)
ACSC			
1.	Servo Controlled Actuator 500 kN	1	25.0
2.	DC Power Supply	1	2.0
3.	Twin screw extruder	1	35.0
4.	Injection moulding	1	35.0
5.	Compression moulding	1	15.0
6.	Salt Spray Chamber	1	20.0
7.	Programmable Vacuum Mixing Unit	1	6.0
8.	High-capacity Screen Shaker with sieve trays	1	11.0
9.	Transient Hot Bridge Thermal Conductivity Analyzer	1	36.0
10.	Convection laboratory oven	1	8.0
11.	Adiabatic concrete calorimeter	1	50.00
12.	BET Specific Surface Area Analyser	1	45.00
13.	Fume Hood	1	1.50
14.	LVDT/RVDT: (i) 50mm/100mm (5 Nos) (ii) 10/25mm (3 nos.) (iii) 100mm/400mm (2 nos.)	1	3.00
15.	Load cell 500 kN (2 nos.)	1	2.00
16.	Loading Frame 100 Ton	1	7.00
17.	Fork Lift	1	1.00
18.	Impact Rated Force Sensor	1	3.00
19.	Proving Ring (500 kN)	1	1.00
20.	Acoustic Emission Setup	1	90.00
21.	Data Acquisition System (32 channel)	1	5.00
22.	Upgradation of UTM 1000 kN	1	45.00
23.	Upgradation of UTM 20 kN	1	5.00
24.	Concrete Mixer (1000 L)	1	6.00
25.	Portable Electric Furnace	1	6.00
26.	Jaw Crusher	1	2.50
27.	TGA	1	45.00
28.	Maturity Meter	1	5.00
29.	Consistometer for Concrete	1	1.00
30.	Air content meter (Mortar)	1	5.00
GEGH			
31.	Ground Penetrating Radar (GPR)	1	200
32.	FBG sensor network	1	80.00
33.	Temperature control unit for tensile testing Machine-Up gradation	1	40.00
34.	A land streamer for MASW geophones	1	20.00
35.	Fabrication of wave creator	1	12.00
36.	Seismic down/cross hole Equipment	1	50.00
37.	Small Value Apparatus, Instruments, and Accessories etc, (up to Rs. 5 Lakhs) (1) Accelerometers (3Nos.) (2) Pore pressure sensors (3Nos.) (3) Earth pressure sensors (3Nos.) (4) Displacement sensors (3 Nos.) (5) Force sensors(2Nos.) (6) Spare geophones (12Nos.), connecting cables		

	(one pair) and a striking silicon pad (7) Laser displacement sensors(2Nos.) (8) Fabrication of Geosynthetics Mold (2Nos.) (9) Hot Plate(1No.) (10) Portable seismograph(2Nos.) (11) Any Other etc.	-	65.00
FSE			
38.	Single Burning Item test Apparatus	01	150
39.	High pressure slurry paint gun	01	5.00
F&AO			
40.	Computer	6	7.50
41.	Coloured Printer	1	0.35
42.	Printer (With Photostat Feature)	2	0.50
43.	Executive Chair	2	0.50
44.	Visitor's Chairs	6	0.48
45.	Office Table	1	0.35
46.	Staff Chairs	6	0.30
APEE			
47.	U Value Apparatus Chamber	1	183
48.	Psychrometric Ambient Calorimeter	1	183
49.	Workstation	1	4.00
50.	24 Channel DAQ with internet connectivity (web server)	3	7.50
Library			
51.	Library Books & Print Journals (P5025108 & P5025114)		5.00
52.	Institutional Membership (P2517204)		4.00
53.	Newspapers & magazines (P04027)		1.00
Store & Purchase			
54.	Desk Top Computer	03	2.00
55.	Printer	03	1.00
56.	Fork Lift	01	1.00
57.	Executive Table	02	0.50
SE			
58.	1000 kN Capacity Computer Controlled high fatigue rated universal testing machine.	01	300
59.	3D Digital Image Correlation system with software suite	01	85.00
60.	Split Hopkinson Pressure Bar apparatus	01	45.00
61.	Test setup for out of plane loading of wall panels using Pneumatic bags	01	30.00
62.	Two-stage gas gun facility	01	40.00
HSS			
63.	Closed Loop Pneumatic Pressurization System with Digital Controller for Testing of Facades under Simulated Wind Pressure	01	500
64.	Antenna for GPR	01	35.00
65.	3D Terrestrial Laser Scanner with accessories and processing software suite/plug-in	01	50.00
66.	Vibration Shaking Table	01	20.00
67.	Gate for Flash flood simulator	01	8.00
68.	Sensors (Load cells, Earth pressure cells, Accelerometer, Pore Pressure Sensors, Potentiometers, Test Setups, Fabricated Setup)	-	10.00
69.	Pix 4D/Metashape/Other software	01	4.00
70.	Handheld EM wave-based Scanner / Handheld GPR	01	15.00
71.	Tower ACs for Lab	04	4.00
72.	Tables & Chairs for CoE on Heritage	Tables – 12 Chairs - 44	6.00
73.	Sensors (Load cells, Earth pressure cells, Accelerometer, Pore Pressure Sensors, Potentiometers, Test Setups, Fabricated Setup)	-	5.00
74.	Server, High end workstation, Computers, All in One, UPS, Printer	01	35.00
75.	Data collection system for monitoring	-	3.00
76.	Geophone with data logging arrangement	01	18.00

77.	3D Printer	01	2.00
78.	Metal Detector	01	5.00
79.	3-D DIC	01	90.00
80.	Automatic CTM	01	30.00
81.	Computers	04	2.50
82.	Printers	04	1.00
83.	Laboratory Air coolers	03	0.40
84.	Lab Air Conditioners	03	1.00
85.	UPS	05	2.00
86.	Needle vibrator	01	0.10
87.	Vibrating Table	01	1.00
88.	Concrete/Lime Mixer Machine	01	1.00
89.	DC Regulated Power Supply	01	0.50
90.	Power Amplifier	01	5.00
91.	Lab Furniture (Stool, Table, storage, chair etc.)	-	1.00
92.	Laboratory minor equipment's (Fan, exhaust fan, wood planer, Bar locator, battery charger, distance meter, power supply, 3phase motor, trolley, strain gauges)	-	1.00
93.	Other necessary minor instruments (Core cutting machine, Steel Cutter, Grinder, Drilling machine, Color meter, moisture meter, stone cutter, grinder, DSLR camera, humidity chamber etc.)	-	3.00
General Section			
94.	Revolving Chair	20	1.40
95.	All in one Computer	05	4.50
96.	Printer	05	1.50
97.	Cartridge	100	4.00
RPBD			
98.	Laser Colour Printer	1	4.00
99.	UPS	2	0.10
100.	UPS-3 Phase to 1 Phase 10 KVA	1	5.00
101.	Audio-Video System (Mike, Speakers, Display Panel/wall) For auditorium First Floor Conf. Room, Ground Floor Conf. Room	1	100
102.	Laptop	1	1.25
BMES			
103.	XRD	1	150
104.	EDAX for FESEM	1	30.00
105.	FTIR	1	30.00
106.	Concrete durability test kit	1	2.00
107.	Gold Sputter coater	1	11.00
108.	Portable thermal conductivity meter	1	11.00
109.	Temperature data logger system	1	10.00
110.	Furnace for brick baking 1200 °C for bulk firing	1	5.00
111.	Oven	4	2.00
112.	Semi-analytical balance	2	1.00
113.	BET for surface area analysis	1	50.00
114.	Spray Dryer	1	10.00
115.	Minor equipment's such as pH, printers, magnetic stirrers, water bath, glassware, stationeries etc.		5.00
116.	CO2 analyser	2	4.00
117.	XRF	1	90.00
118.	Furnace	1	12.00
119.	Ultrapure Water Purification System	1	15.00
120.	Carbonation Unit Fabrication	1	10.00
121.	Minor equipment's such as weighing balance, stirrer, proving ring, colour printer, moulds, printers, magnetic stirrers, water bath, glassware, stationeries, Ball mill, workstation, laptop, freeze thaw apparatus, etc.	1	15.00
CA&R			
122.	Window/split AC	5	2.50
123.	Uninterrupted Power Supplies (UPS)	3	1.50
124.	Printer/Scanner	3	3.00
125.	Work station	2	5.00
126.	Spin Coater		2.50
127.	Camera (Thermal Imaging camera and One high	1	10.00

	resolution camera)		
128	Laser mapping sensor	1	2.00
129	Plastic shredder	1	3.00
130	Straw chopping machine	1	2.50
131	CAD/SolidWorks software (renew/purchase)	3	40.00
132	10KVA UPS with battery	4	40.00

(ii)	Equipment: Out of CSIR Funded Projects
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Sr. No	Name Category of Equipment/ Vehicle Item	Quantity (Nos.)	Project Number/ Code	Approximate Cost (Rs. In Lakhs)
ACSC				
1.	Manual Stacker	1	MLP052204	0.75
2.	Accelerometer	1	MLP052204	1.00
3.	Load Cell	3	MLP052204	1.00
4.	Carbonation Chamber	01	OLP 2226	7.50
5.	LVDTs (50 mm and 100 mm)	03 + 02	OLP 2226	1.00
Shorab Jain				
6.	UPS 15 KVA	1	P07	3.00
APEE				
7.	PV Performance Analyzer	01	FBR040304	8.50
8.	Flow Meter/Rotameter	03	MLP12304	4.50
9.	Pump	03	MLP12304	1.50
10.	IOT based Weather Station	01	MLP12304	1.50
11.	Probe for visible light Spectrum	01	MLP12304/LRF	6.00
12.	3D Printer for Large Size product	01	MLP12304/LRF	6.00
13.	Mobile Workstation	01	MLP12304/LRF	3.00
14.	PIV	01	LRF	100
15.	Solar reflectance index (SRI) measuring instrument	01	LRF	80.0
16.	Pitot Tube	01	MLP12304/OLP- 2303	2.00
17.	Manometer	01	MLP12304/OLP- 2303	2.00
18.	Heat Flux Sensors	03	MLP12304/LRF	3.00
19.	Thermal/ Image Camera	01		6.40
20.	Data Acquisition System/ Data Logging and Communication Devices	01		5.50
21.	Energy Meter	01		4.00
22.	Digital Infrared thermometer	01		0.75
23.	Pyrometer	01		0.70
24.	Thermal conductivity facility / and overall heat transfer coefficient value facility	01		2.20
25.	Pyrgeometer	01		4.00
26.	Environment Chamber	01		6.50
27.	Humidity/Vacuum Chamber	01		3.00
28.	Spectrophotometer	01		6.20
29.	Spectroradiometer	01		3.00
30.	Fourier Transform Infrared (FTIR) spectroscopy	01		1.00
31.	Portable Emissivity Meters	01		0.71
32.	Albedometer	01		1.50
33.	Flux Radiometer	01		4.00
34.	Infrared Radiometer	01		6.00
35.	sky radiance meter	01		
36.	Weather station	02		4.00
37.	Fluke 370 FC Series True-RMS Wireless AC/DC Clamp Meters / TRUE RMS CLAMP METERS	01		0.75
38.	True-RMS Electronic Logging Multimeter With Trendcapture	01		1.00
39.	Fluke Make Portable Power Analyzer with 4 voltage inputs and	01		16.00

	4 current inputs With 2,000A AC/DC Current			
40.	Digital Storage Oscilloscope / Fluke Make Color Scope Meter, 500MHz, 4 channels	01		10.00
41.	Green Hydrogen Gas Cylinder for supplying Hydrogen gas to fuel cell stack	01		0.20
42.	Fuel Cell Stack (up to 2kW)	01		11.00
43.	Batteries (24 to 48V, 150Ah, 2 to 5kWh)	01		1.00
44.	ITECH Make 80V/150A/5KW Bidirectional Programmable DC Power Supply with Solar Array Software / IT6005C-80-150 With SAS1000	01		6.00
45.	Battery Charging Controller	01		0.25
46.	DC to DC Boost Converter	01		3.00
47.	One DC to AC Converter / Inverter for achieving 50Hz, 3 Phase AC / 1 Phase AC	01		6.00
48.	Single Phase / Three Phase Variable (Two in One) Power Factor 10 kVA Load Bank	01		4.00
49.	Electrolyzer to generate Hydrogen from Pure Water (H2O) supplied by Water Purifier/RO	01		23.00
50.	2 to 5 kVA Solar Inverter Set (Off Grid/Stand-alone)	01		1.00
51.	Water Distillation Unit			0.30
52.	Oil Filled Room Heater for laboratory	01		0.15
53.	Net Meter	01		0.25
54.	Desktop	01		4.00
55.	UPS for Desktop	01		0.50
56.	Laptop	01		3.00
57.	Temtop M2000 2nd Gen Air Quality Monitor	4		1.50
58.	Wood Carving machine	1		8.00
59.	Workstation	1		4.75
60.	U Value Apparatus	1	PEF	183
61.	Psychrometric Ambient Calorimeter	1	PEF	183
62.	Heat Capacity Measurement	1	OLP2305	2.50
63.	WorkStation	1	LRF	10.00
64.	Hygrometer	1		0.40
65.	Anemometer	1		0.20
66.	Lux Meter	1		0.40
67.	Globe Thermometer	1		0.10
68.	LiDAR Scanner	1		1.20
69.	Thermography Camera	1		1.00
70.	Air Quality Monitor	1		0.30
71.	Manometer	1		0.30
72.	Decibel Meter	1		0.15
73.	Pyranometer	1		0.30
74.	Inclinometer	1		0.15
75.	Instruments: (a) Controllers, (b) Data Acquisition System – NI Modules and Dataloggers. (c) Sensors – Strain Gauges, Temperature, Ph, RH, CO2, VOC, Radon, Turbidity, TDS, Water Level, Humidity Chamber, Pyranometer, Thermal Comfort Meter, Mustimeters, Lux Meters, Anemometer, Albedometer, Spectroradiometer, Refrigerant Leak Detector			50.00
76.	Software Licenses (Autodesk AutoCAD – MEP, Electrical,			100

	Architectural, Revit MEP, SolidWorks, PTC Creo, TRNSYS, Autodesk Inventor, Inventor Nastran, Mechanical Simulation)			
77.	Mobile Workstation / Workstation / Computer			10.00
78.	Heliodon			5.00
79.	Wind Tunnel repair and retrofit			50.00
80.	Sky dome			10.00
81.	Thermocouple through Wire Welder			5.00
82.	High Resolution Camara			20.00
83.	Vacuum Pump			1.00
84.	Weighing Balance			2.00
85.	Interactive Screen			1.00
86.	Retrofitting of Wind tunnel			40.00
87.	Compressors with accessories (compatible with respective refrigerants)			5.00
88.	Keithley/NI Data Logger Modules			10.00
89.	Blowers			5.00
90.	Power Controllers			5.00
91.	Sub-zero Temperature Controllers			10.00
92.	Energy meters			5.00
93.	Pressure switches and flow meter and controllers			5.00
94.	Heat Transfer experimental set-up			20.00
Debdutta Ghosh				
95.	IT Products	4	NWP-100	1.00
96.	IT Products	3	HCP-0101	2.00
HSS				
97.	3D Printer	01	OLP 2218	1.00
BMES				
98.	UV/VIS/NIR spectroscopy Diffuse Reflectance spectrometer	01	Project fund/Institute fund	12.00
99.	Whiteness meter	01	--do--	0.9
100.	FT IR / diffuse reflectance IR spectroscopy	01	--do--	23.00
101.	Manual carbonation chamber with cylinder and CO2 detector fitted with it	01	--do--	6.00
102.	Potentiostat/ Galvanostat portable	01	--do--	12.00
103.	Shredder machine for crushing solid scrap samples into fine particle	01	--do--	10.00
104.	Powder grinding machine	01	--do--	10.00
105.	Oven	01	--do--	3.00
106.	Furnace	01	--do--	8.00
107.	N2, O2, CO2 cylinder with complete valve, regulator set up	01	--do--	4.00
108.	Fridge	01	--do--	0.5
109.	Water distillation unit	01	--do--	2.00
110.	Rotavapour for synthesis	01	--do--	3.00
111.	Zeta potential measurement /Electrophoresis instrument set up	01	--do--	7.00
112.	Cyclomixer,	01	--do--	0.40
113.	Heavy duty paint mixer Electric Multipurpose Stirring Machine Rotary Tool	01	--do--	0.20
114.	Grinding machine 4"	01	--do--	0.20
115.	Glue gun	01	--do--	0.10
116.	Blower\dryer	01	--do--	0.10
117.	Ultasonicator	01	--do--	0.80
118.	Centrifugation apparatus	01	--do--	0.40
119.	Weighing machine	01	--do--	0.40
120.	TDS, pH, Ionic conductivity meter, other minor physical parameter measurement instrument	Per unit	--do--	0.50
121.	mixer grinder	01	--do--	0.10

122.	Electric water boiler (Glass) transparent	01	--do--	0.10
123.	DC source 1-12 volts with digital voltage, ampere readings	01	--do--	0.50
124.	Multimeter for Volts/Amp Measurement reading	01	--do--	0.10
125.	Refrigerated centrifuge	01	--do--	7.00
126.	Autoclave	01	--do--	3.00
127.	Laminar air flow cabinet	01	--do--	3.00
128.	Distillation assembly	01	--do--	3.00
129.	Deep freezer (-800c)	01	GAP-0152	18.00
130.	Deep freezer (-200c)	01	GAP-0152	2.00
131.	Pan mixer	01	GAP-0152	1.00
CA&R				
132.	Multi axis CNC controller with accessories	1	FTT040504	6.00
133.	Microcontroller /PLC (Industrial grade) with accessories	5	FTT040504	3.00
134.	Motors (AC/DC)	6	FTT040504	6.00
135.	Motor drives (AC/DC)	6	FTT040504	4.00
136.	Variable frequency drives (VFD)	6	FTT040504	4.00
137.	Data acquisition system/measuring software	2	FTT040504	5.00
138.	Testing instruments for robotic systems and plastering machine	2	FTT040504	4.00
139.	Actuators with accessories for plastering machine	4	FTT040504	2.00
140.	Control panel with accessories for robot/plastering machine	2	FTT040504	10.00
141.	Electronics items for fabrication of the robotic systems and plastering machine	10	FTT040504	5.00
142.	Human machine interface module with mobile workstation	2	FTT040504	5.00
143.	CAD/SolidWorks software (renew/purchase)	2	FTT040504	10.00
144.	Standard mechanical items: pumping unit, gears, shafts, bearings and LM guides etc	10	FTT040504	3.00
145.	Power supply (DC/AC)	2	FTT040504	5.00
146.	Motors (AC/DC)	2	HCP059	8.00
147.	Testing instruments Panel casting/block making machine	1	HCP059	5.00
148.	Control panel with accessories for casting/block making machine	1	HCP059	5.00
149.	Standard mechanical items: pumping unit, gears, shafts, bearings and LM guides etc.	5	HCP059	5.00
150.	Data Logger for avalanche monitoring	1	NCP040304	3.00
151.	LiDAR	1	NCP040304	2.00
152.	Weather Station	1	NCP040304	2.00
153.	Laptop	1	NCP040304	2.00
154.	Power Supply	1	NCP040304	2.00
155.	Advance PCB Designing Machine	1	NCP040304	3.00
156.	Invertor	1	NCP040304	0.50
157.	Solar PV System	2	NCP040304	0.50
158.	3D FDM printer with PC	1	NCP040304	3.00
159.	Camera (Thermal Imaging camera and One high resolution camera)	1	NCP040304	10.00
160.	Avalanche testing/visiting kit	2	NCP040304	2.00

(iii)	Equipment: Out of Externally Funded Projects (EFP)
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Sr. No	Name Category of Equipment/ Vehicle Item	Quantity (Nos.)	Project Number/ Code	Approximate Cost (Rs. In Lakhs)
ACSC				

1.	DSLR Camera	1	SSP-0143	0.50
2.	Thickness Gauge	1	SSP-0733	0.10
3.	Angle Grinder	1	SSP-0733	0.05
APEE				
4.	Thermal Conductivity Apparatus	1	TST	70.00
5.	Electrical properties Earth Resistivity, Insulation, Megger, Di-electric tester	1	TST	10.00
6.	Air conditioning Measurement apparatus	1	TST	10.00
7.	RF Spectrum Analyser with Mono Directional Antenna & Computer set up	01	SSP-0301	10.00
8.	NDT Instruments	04	SSP-0263	07.00
9.	Mobile Workstation	01	GAP-1423	03.00
10.	Workstation	01	GAP-1423	05.00
11.	Misc. office Items	-	SSP-0263 & SSP-0301	02.00
HSS				
12.	UPV	01	SSP 922, SSP1373, GAP 311	6.00
13.	Deep Freezer	01		0.25
14.	Airflow Cabinet	01		1.00
15.	Half Cell Potentiometer	01		8.00
16.	Incubator Shaker	01		1.00
17.	Spectrophotometer	01		0.40
18.	Autoclave	01		0.25
19.	Computers	04		2.50
20.	Printers	04		1.00

A (b)	CONSUMABLES
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Sr. No.	Category	Expected Procurement Value (Rs. In Lakhs)			
		Out of CSIR Infra Grant	Out of CSIR Funded Projects	Out of Externally Funded Project (EFP)	Total (Rs. In Lakhs)
ACSC					
1.	R&D Consumables for closed loop systems Furnace- Heating Element, Tensile Grip for UTM/CTM, Load Cell setup for Hyd. Cylinder, LVDT Setup for Hyd. Cylinder, Loading Frame Setup, Loading Frame Repair, Electrode for Chloride Ion Meter		0.25	6	6.25
2.	Chemicals Phenolphthalein, NaCl, NaOH, Nitric Acid, Salt, KOH, CaOH ₂ , Copper Sulphate, Acetone, Aluminium(Metal) Fine Powder, Calcium Carbonate, Calcium Chloride, Calcium Sulphate Dihydrate , Anhydrous Calcium Chloride, Calcium Hydroxide (Hydrate Lime), Calcium Oxide, Silica Fume, Hydrochloric Acid, Nitric Acid, Hydrofluoric Acid, Isopropyl Alcohol, Murexide, Methyl Orange, Isopropyl Alcohol, Admixtures, Foaming Agent , Resin & Hardener , Lacquer, Boric Acid Powder, Sodium Hydroxide Pellets, Hydroxy Propyl Methyl Cellulose, Propanol , Glassware Cleaning Agent, Sulphuric Acid, Polyvinyl Alcohol, Silver Nitrate, Sodium Sulphate, Kaolin, Potassium Hydroxide, Propylene Glycol, Nitro Benzene, Sodium Polyacrylate, Hydrogen Peroxide, etc.		2.25	6.5	8.75
3.	Other Consumables Aggregates, Steel Plates, Steel Sections, Steel Tubes, Reinforcements, Binding wires, Cement, Sand, Super Plasticizer, Cutting/grinding Blades, Epoxy, latex, Hydraulic Oil, Gear Oil, Bricks, Textiles, FRP, Grids, Adhesives of any , Strain Gauges, Wrench set, Electrical/Strain Gauges Wires, Bolts, Pipes, Nuts, Fabrication of Loading Frame, Test bed, Extension box, Oil Filter, Seal, Pressure Gauge, Crack Meter, DPT Kit, Welding Gauge, Welding Rods, Adhesive Tapes, White Putty, Water Pipe, Cotton/Coir bags, Paints, Primer, POP, Brushes, Oil, Moulds, Bolt and Nuts, Chain Pulley, Sensors-Humidity, Thermal, Temp, Creep Setup fabrication , Flat Jack, Flat Plates, Hyd. Pipes, Couplers, U Bolts, Anchors, Injection able Adhesives, Grease , Steel/Concrete Drill Bits, Anchor Rods/Bolts, Hinges, Water Pump, Trowel Set, Spade, Scoop, Gloves, Shoes, Helmets, Masks, Goggles, Safety Nets, Safety Guard Dress, Lab Coats, Aprons, heating elements, Coils, Fibres, Mineral Admixtures, Graphene, Glass wool, Steel Wool, Computer Accessories, Acrylic Sheets, Steel Mesh, Plywood, Power Banks, Dongle, Wires, IOT Sensors with DAQ, Boards, Mobiles, White board, Notice board, Sodium Hydroxide, Sodium silicate, Pigment, GGBS, Fly Ash, Realising Agents, Sand, Coarse Sand , Aggregates, Gunny Bags, Ziplock Bags, HDPE Bags, LDPE Bags, Filter, Paper, Tongs, Clams, Spatula, Scoop, Flat Spoon , Spoon Spatula, Ointment Spatula, Scoop, Blunt Dissecting, Examination Gloves, Mask, PPE kit, Lab Safety Shoes, Lab Safety hat, R&D Raw Materials, Round PP Disposable Cap, etc.		3.25	16	19.25
4.	Glass wares (ex- name the different glass wares) Bottles, glasses, Beakers (various capacities) Desiccators Flasks, Beaker's Different Capacity,		0.5	5.5	6.00

	Desiccators Different Capacity, Dishes, Measuring Cylinder, Pipette Laboratory Bottles, Reagent Bottles, Specific Gravity Bottle (Pycnometer), Weighing Bottles, Gas Sampling, Tubes, Burettes, Autoburettes, Cones, Condenser, Viscometer, Volumetric Flask, Round Bottom Flask, Conical Flask, Glass Filtration Assembly, Mortar & Pestle, Weighing Scoop, Museum Jars, Funnels, Stirrer Rods, Glass Dryer. Quartz Ware: Beakers, Dishes & Basin, Crucible, Lid, Circular Capsule, Slides,				
5.	Plastic wares (ex- Name the different plastic wares) Plastic Tub, Buckets, Mugs, Containers, bottle top dispensers, plastic wash bottle, beakers of different sizes, silicone tubing, electronic micropipette, water bottles, LDPE carboy with stopcock, aspirator bottle with stopcock, air-tight containers of different sizes, sample holder and storage, unbreakable plastic tubs, buckets, measuring cylinders, etc			2.5	2.50
6.	Toner Cartridges. Cartridges (B/W) and Colour, Ink, Powder/Laser		0.2	3.0	3.20
7.	Batteries, etc. UPS Batteries , AA, AAA, 9W Battery		0.5	3.0	3.50
8.	Gases (ex- tentative names) CO2 cylinders		0.5		0.50
9.	Maintenance/AMC/repairing of existing equipment AMC of UTM, Maintenance of CTM, Hyd. Cylinder, Hyd. Pump, Load Cells, LVDTs, DAQs Environmental Chamber (PLC Problem, Humidity Sensor, etc.); Dilatometer (Calibration of Equipment, Service, software upgrades, etc.); UV Chamber (Calibration of Equipment, Service, software upgrades, etc.); CTM (Calibration of Equipment, Service, software upgrades, etc.); MOR (Calibration of Equipment, Service, software upgrades, etc.); C-Therm (Calibration of Equipment, Service, software upgrades, etc.); Accelerated Curing Tank (Calibration of Equipment, Service, etc.)	2.0	2.25	17.0	21.25
10.	Stationery items (ex- name a few Papers, Photo Print Sheets, Markers, Tape, Scale, Files, Note Pads, Registers, Markers, Ink, Ink Pad, Stamp, Stapler, A4 sheet, bond paper reams, register/noting pads, stapler pins, glossy sheets, pens, permanent markers, whiteboard markers, sticker sheets, binding sheets, tape, highlighters, and more,		0.2	2.7	2.90
11.	IT / software-related Items (Name the items required during year) Seismo Struct, Seismo Build, FRP Designer, Antivirus, MS office, etc., 3D designing Software, etc.			5.5	5.50
12.	Electric Items (Name the items required during year) LED Lights, Junction box for extension, Heating Elements, Switches, Wires		0.2	0.5	0.70
GEGH					
13.	R&D Consumables for closed loop systems (by cyclic tri-axial system, consolidation apparatus, direct shear, data logger, LVDT, etc.)				5.00
14.	Chemicals (sodium hexametaphosphate, solvents, PluronicF-127, tributyl phosphate, lime, liquid Nitrogen, etc.)				5.00
15.	Other Consumables (Strain gauges, carbon black, nano carbon, nano silica, HDPE powder, PP powder, Copperplates, sand, adhesive, porous stones, gaskets, membrane, cement, multimeter, soldering unit, etc.)				15.00
16.	Glass wares (Desiccator, Beaker, etc.)				2.00
17.	Plastic wares (Connectors, etc.)				1.00
18.	Toner Cartridges.				1.00
19.	Batteries, etc.				1.00
20.	Maintenance/AMC/repairing of existing equipment				5.00

21.	Stationery items (A4Budle, Acrylic Paint, Adhesives, Sticky Notes, Pen, etc.)				1.00
22.	IT/software-related Items (Anti-Virus, Pen Drive, Portable Disk, New/Upgradation of Software, etc.)				50.00
23.	Furniture (Chairs, Tables for labs, etc.)				30.00
24.	Electric Items (Extension Box, etc.)				1.00
Shorab Jain					
25.	Toner Cartridges.			0.75	0.75
26.	Batteries, etc.	1.00			1.00
27.	Stationery items (ex- name a few) Bond paper, Binding / Printing of Reports / Paper Rolls			1.0	1.00
28.	IT / software-related Items (Name the items required during year) Antivirus Software – Piping Software Auto CAD	10.00			10.00
29.	Furniture (Name the items required during year)			0.75	0.75
APEE					
30.	R&D Consumables for closed loop systems (by equipment name e.g., Kits for Illumina sequencer)				50.00
31.	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)				20.00
32.	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)				50.00
33.	Glass wares (ex- name the different glass wares)				10.00
34.	Plastic wares (ex- Name the different plastic wares)				10.00
35.	Toner Cartridges.				10.00
36.	Batteries, etc.				10.00
37.	Gases (ex- tentative names)				1.00
38.	Maintenance/AMC/repairing of existing equipment				100
39.	Stationery items (ex- name a few)				20.00
40.	IT / software-related Items (Name the items required during year)				50.00
41.	Furniture (Name the items required during year)				50.00
42.	Electric Items (Name the items required during year)				50.00
Library					
43.	Toner Cartridges.	0.50			0.50
44.	Batteries, etc.	1.00			1.00
45.	Maintenance/AMC/repairing of existing equipment	0.50			0.50
46.	Stationery items (cello tape, Xerox paper, fevicol, permanent marker etc.)	0.20			0.20
47.	IT / software-related Items (latest configuration Server with UPS, Library software & Institutional Repository software etc.)	15.00			15.00
48.	Furniture (Book shelves, magazine and newspaper display racks)	6.00			6.00
49.	Electric Items (Lights, Air conditioners, heaters and blowers for library both reading halls)	5.00			5.00
HSS					
50.	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)		15,50,000/-		
51.	Glass wares (ex- name the different glass wares)		25,000/-		
52.	Toner Cartridges.		50,000/-		
53.	Batteries, etc.		25,000/-		
54.	Maintenance/AMC/repairing of existing equipment		50,000/-		

55.	Stationery items (ex- name a few)		5,00,000/-		
56.	IT / software-related Items (Name the items required during year)		50,000/-		
57.	Furniture (Name the items required during year)	8,00,000/-			
58.	Electric Items (Name the items required during year)	1,00,000/-			
Store & Purchase					
59.	R&D Consumables for closed loop systems (by equipment name)				5.0
60.	Chemicals (ex – Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.				10
61.	Other consumables (ex – Insecticide, raw materials, packing materials, column, syringes, Transcriptome and Metagenome analysis, Metabolites analyses, Farm consumables, TLC Plates, Filters papers, Planting materials, seeds Chemical's standards, essential oils, standard aroma molecules, Animal feed, Cell lines, Agriculture accessories, etc.) DAP, Urea, Nuwan,				5.0
62.	Glass wares (ex – name the different glass wares) Beaker, Conical Flask, Measuring Flask etc.				5.0
63.	Plastic wares (ex- Name the different plastic wares)				1.0
64.	Toner Cartridges. Q2612, 436, 7115, canon 328, 337, 331				5.0
65.	Batteries, etc. LED Acid Battery 150Amp, SMF Batteries				2.0
66.	Gases (ex- tentative names), Oxygen, Nitrogen, Helium etc.				2.0
67.	Maintenance/AMC/repairing of existing equipment				4.0
68.	Stationery items (ex- name a few)				10.0
69.	IT / software-related items (Name the required during year), Antivirus, Autocad, Educational software				20.0
70.	Furniture (Name the items required during year)				5.0
71.	Electric items (Name the items required during year)				5.0
SE					
72.	R&D Consumables for closed loop systems (by equipment name eg. Kits for Illumina sequencer)	5.00	10.00	20.00	35.00
73.	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	10.00	15.00	25.00	50.00
74.	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)	25.00	30.00	50.00	105.00
75.	Glass wares (ex- name the different glass wares)	10.00	20.00	30.00	60.00
76.	Plastic wares (ex- Name the different plastic wares)	10.00	20.00	30.00	60.00
77.	Toner Cartridges.	2.00	3.00	5.00	10.00
78.	Batteries, etc.	1.00	1.00	1.00	3.00
79.	Gases (ex- tentative names)	1.00	1.00	1.00	3.00
80.	Maintenance/AMC/repairing of existing equipment	10.00	10.00	10.00	30.00
81.	Stationery items (ex- name a few)	2.00	5.00	8.00	15.00
82.	IT / software-related Items (Name the items required during year)	10.00	10.00	10.00	30.00
83.	Furniture (Name the items required during year)	5.00	5.00	10.00	20.00
84.	Electric Items (Name the items required during year)	2.00	5.00	8.00	15.00
HSS					
85.	R&D Consumables for closed loop systems (by equipment name e.g., Kits for Illumina sequencer)	10	01	03	14.00
86.	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	05			05.00

87.	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)	02		01	03.00
88.	Glass wares (ex- name the different glass wares)	02			02.00
89.	Plastic wares (ex- Name the different plastic wares)	02			02.00
90.	Toner Cartridges.	01			01.00
91.	Batteries, etc.	01			01.00
92.	Gases (ex- tentative names)	01			01.00
93.	Maintenance/AMC/repairing of existing equipment	02			02.00
94.	Stationery items (ex- name a few)	02			02.00
95.	IT / software-related Items (Name the items required during year)	05			05.00
96.	Furniture (Name the items required during year)	30			30.00
97.	Electric Items (Name the items required during year)	10			10.00
RPBD					
98.	R&D Consumables for closed loop systems (by equipment name e.g., Kits for Illumina sequencer) (Extension Board)				0.015
99.	Toner Cartridges. (Xerox Altalink machine cartridge-2, Canon Printer cartridge-8, KYCN 054 colour Printer cartridge- 1)				1.10
100	Batteries, etc. (UPS Batteries-20)				0.15
101	IT / software-related Items (Name the items required during year) (Software development)				5.00
102	Furniture (Name the items required during year) (20 Cushioned Chairs with handle, 2 Executive Chairs, 1 Executive Table)				1.80
BMES					
103	R&D Consumables for closed loop systems (by equipment name eg., Kits for Illumina sequencer)	Moulds, crucibles, etc.	-	-	10.00
104	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	Methanol, ethanol, isopropanol, Titanium oxide, commercial grade chemicals related to our projects etc	-	-	10.00
105	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)	Zip pouches, filter paper, parafilm, duct tape, Teflon tape, carbon tape etc.			10.00
106	Glass wares (ex- name the different glass wares)	Beakers, Flasks, measuring cylinders, distillation plant, burette, etc.			4.00
107	Plastic wares (ex- Name the different plastic wares)	Beakers, Flasks, measuring cylinders, etc.			4.00
108	Toner Cartridges.	For			6.00

		printers			
109	Batteries, etc.	FE-SEM			4.00
110	Gases (ex- tentative names)	CO2, N2, Flue gas			10.00
111	Maintenance/AMC/repairing of existing equipment	10	10.00		
112	Stationery items (ex- name a few)	Paper ream, notepads, pens, CD, markers, highlighte rs, etc.	1.00		
113	Furniture (Name the items required during year)	Visiting chairs, Almirah	-		1.00
CA&R					
114	R&D Consumables for closed loop systems (by equipment name eg. Kits for Illumina sequencer)		Electronics/ mechanical /robotic/IoT s/Drone kits (OLP2212 FTT040504 MLP04220 4, NCP04030 4)		10.00
115	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)		Chemical for material processing (MLP0422 04, FTT040504)		10.00
116	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)		Fabrication of mechanical/ robotic systems, procuremen ts of electronic and mechanical elements (NCP04030 4 HCP059 OLP2212 FTT040504 MLP04220 4)		20.00
117	Toner Cartridges.		For project report (NCP04030 4 HCP059 OLP2212 FTT040504 MLP04220 4)		2.00
118	Batteries, etc.		Electronics items and sensors for fabrication of the robotic systems, plastering machine,		20.00

			panel casting machine, drone and snow avalanche system etc. (NCP040304 HCP059 OLP2212 FTT040504)		
119	Maintenance/AMC/repairing of existing equipment	Renovation of existing Lab, existing equipment	Renovation of existing Lab, existing equipment (NCP040304 HCP059 OLP2212 FTT040504)		20.00
120	Stationery items (ex- name a few)		All stationery items for project work (NCP040304 HCP059 OLP2212 FTT040504)		1.00
121	IT / software-related Items (Name the items required during year)		PyCharm, Arduino cloud, Solidworks, PCB designing (NCP040304 HCP059 OLP2212 FTT040504)		20.00
122	Furniture (Name the items required during year)	1. Component storage steel Almira 2. Storage bins of different sizes for item 3. Modular drawer (4 shelves)			5.00
123	Electric Items (Name the items required during year)	Electric items related to existing infrastructure and new Lab set-up			5.00

B	FOR NEXT 2-4 FINANCIAL YEARS (2025-29) (From 01/04/2025 to 31/03/2029)
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B (a)	EQUIPMENT
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Sr. No.	Name of Equipment / Item	Quantity (Nos.)	Approximate Cost (Rs. In Lakhs)
ACSC			
1.	UTM	1	100.0
2.	Accelerometer	5	10.00
3.	Shaker	1	5.00
4.	Rotatory Shaker	1	5.00
5.	DAQ	1	10.00
6.	Microscope	2	1.00
7.	Pull Out Apparatus	1	5.00
8.	Pull Off Apparatus	1	3.00
9.	Pressure Sensor	2	2.00
10.	Load Cell	2	5.00
11.	Hydraulic System	1	10.00
12.	Fatigue Machine	1	50.00
13.	Camera with Accessories	1	1.00
14.	Concrete Mixer Machine	1	2.50
15.	Manual Scissor Lift	1	1.50
16.	Welding Machine	1	0.50
17.	Steel Drilling Machine	1	2.00
18.	Steel Core Cutter	1	1.00
19.	Carbonation Chamber	01	7.50
20.	LVDTs (50 mm and 100 mm)	03 + 02	1.00
21.	Rheometer and accessories	1 Set	80.00
22.	Acoustic Emission Setup	1 Set	90.00
23.	Data Acquisition System	01	05.00
24.	Raman Spectrometer	01	50.00
25.	Polishing machine for BSE studies	01	25.00
26.	¹ H, ²⁷ Al & ²⁹ Si- NMR Spectrometer	01	175
27.	Transmission Electron Microscope (TEM)	01	350
28.	Sima Pro LCA software	01	08.00
29.	Small-scale pilot plant for cement	01	25.00
30.	A set of Load cell: 500 kN, Hydraulic jack: 300 kN capacity	01	04.00
31.	Weighing balance (High precision: 2 mg)	01	02.00
32.	Molds (Cube, Cylinder, Prism) for concrete	30 Nos. each	05.00
33.	Climatic Cabinets for controlled Temp & RH	01	10.00
34.	Small-scale Jar Mills	01	06.00
35.	Maturity Meter for concrete as per ASTM code	01	05.00
36.	Automatic Pull-Off Bond Strength Tester	01	09.00
37.	Zeta potential analyser for measurement of inter-particle Interaction efficacy	01	20.00
38.	Atomic Absorption Spectrometry	01	35.00
39.	Water Bath	01	2.50
40.	Ultrasonic Bath	01	02.00
41.	Stirrers - Max Stir	01	02.00
42.	Electronic Burette	02	03.00
43.	Survismeter	01	03.00
44.	Platinum Crucible of Different Capacity	05	15.00
45.	Super High-resolution imaging (microscope)	01	30.00
46.	Dual Humidity Chamber	01	10.00
47.	Hydraulic hot press 500 tonne	01	25.00
48.	High-resolution 4K projector with a compatible screen	01	05.00
49.	Bluetooth Sound Bar for meeting room	01	0.25
50.	Conference Room Camera System	01	010
51.	LED High-resolution 4K Screen	01	2.50
52.	FTIR (Full range)	01	40.00
53.	High Temperature Electric furnace (1600°C)	01	20.00
54.	Digital Analytical balance (220 gm)	01	3.00
55.	Ultrasonicator	01	3.00
56.	Doubled distilled water apparatus	01	2.00

GEGH			
57.	Fabrication of Scaled down TBM	1	100
58.	Consolidation apparatus	1	25.00
59.	Compaction Apparatus	1	15.00
60.	Rainfall simulator nozzles with complete Pressure back up setup	1	30.00
61.	Fourier Transform Infrared Spectrometer	1	90.00
62.	Resonant Column Apparatus	1	200
63.	Soil moisture sensors with complete arrangement	1	20.00
64.	Repair and upgradation of loading frame	1	10.00
65.	Pile Integrity Equipment	1	25.00
66.	Parallel Seismic Pile Equipment	1	35.00
67.	Twin Screw Extruder	1	50.00
68.	Large size Environmental chamber	1	15.00
69.	SWCC equipment	1	40.00
70.	Triaxial and uniaxial fully automatic test system For cylindrical rock samples	1	150
71.	Rock sample coring, cutting and extruder machine	1	20.00
72.	Direct shear test	1	25.00
73.	Sample Extractor	1	3.00
74.	3D LiDAR scanner (Drone mounted)	1	150
75.	Six degrees of freedom shaking table	1	350
76.	Small Value Apparatus, Instruments, and Accessories etc, (up to Rs. 5 Lakhs) Accelerometers (18 Nos.) Pore pressure sensors (18Nos.) Earth pressure sensors (18Nos.) Displacement sensors (14Nos.) Force sensors (4Nos.) Laser displacement sensors (8Nos.) Portable seismograph (8Nos.) Any other etc.	-	250
FSE			
77.	Steinner Tunnel Fire Test Apparatus	01	120.0
78.	Radiant panel flame spread test Apparatus	01	45.00
APEE			
79.	PIV	01	100
80.	Solar reflectance index (SRI) measuring instrument	01	80.00
81.	Particle Imaging Velocimetry	1	300
82.	Power Analyzer	1	50.00
83.	Thermal Conductivity Apparatus	1	70.00
84.	Heat capacity measurement	1	25.00
85.	UV-VIS-NIR Spectrophotometer	1	200
86.	Steady State U Value Apparatus	1	200
87.	Building Energy simulation Lab Computational Facility with software's	1	20.00
88.	Psychrometric Chambers	2	200
89.	Solar PV panels	1	10.00
90.	Electrical Load Setup	1	10.00
91.	Induction motor with controller	1	5.00
92.	DC motor with controller	1	5.00
93.	BLDC motor with controller	1	5.00
94.	Tachometer	1	2.00
95.	Torque meter	1	2.00
96.	Pressure transmitter	1	2.00
97.	Flow rate controller	1	2.00
98.	Flow rate measurement sensor	1	1.00
99.	Data Logger	1	10.00
100.	High wattage DC supply	1	10.00
101.	High wattage AC supply	1	10.00
102.	AC-DC electronic load convertor	1	10.00
103.	PV Simulator	1	20.00
104.	Different Micro Controller Board	1	10.00
105.	PV with battery bank and invertor (10KW)	1	10.00
106.	Scada/PLC	1	20.00
107.	Workstation	1	10.00
108.	Laptop	1	5.00

109.	Electronic Accessories/Instrumentation/Sensors	1	50.00
110.	Thermal Image Camera	1	50.00
111.	Weather Station	1	20.00
112.	CNC Machine / 3D printer	1	50.00
113.	Smart meter	multiple	5.00
114.	fabrication of solar cooker	1	2.00
115.	AC Filter Testing setup	1	10.00
116.	Blower with VFD	1	5.00
117.	Variac	1	2.00
118.	Orifice Meter	1	1.00
119.	Micro Manometer	1	1.00
120.	LVDT (6 Nos)	6	2.00
121.	Solar Simulator	1	50.00
122.	UPV instrument	1	7.00
123.	Rebound Hammer	1	2.00
Library			
124.	Library Books & Print Journals (P5025108 & P5025114)		25.00
125.	Institutional Membership (P2517204)		18.00
126.	Newspapers & magazines (P04027)		5.00
Store & Purchase			
127.	Desk Top Computer	03	2.00
128.	Printer	03	1.00
129.	Fork Lift	01	1.00
130.	Executive Table	02	0.50
SE			
131.	High sensitive IR Thermography	01	20.00
132.	Ultrasonic Pulse Echo	01	24.00
133.	Ultrasonic Pulse Velocity (Basic)	01	08.00
134.	Ultrasonic Pulse Velocity (Advanced)	01	10.00
135.	Impact Echo + Pile Integrity	01	15.00
136.	Pull-off tester	01	12.00
137.	Infrared Thermography	01	15.00
138.	Onsite Chloride Testing Kit	01	11.00
139.	Surface Moisture Meter	01	02.00
140.	iCOR (Corrosion Wireless NDT Corrosion Detection)	01	28.00
141.	Rebound Hammer Type-L	01	04.00
142.	8 Channels Acoustic Emission System Expandable to 32 Channels	01	45.00
143.	Concrete Scanner	01	30.00
HSS			
144.	Shock Tube and Blast Testing Facility (length-5m, 3 km/s, and caliber-20 cm)	01	150
145.	Load Cell Range 0-30 Tons	01	12.00
146.	High Speed Camera (30,000 fps, 320x256 pixel resolution, ISO 5000, 4GB)	01	75.00
147.	Oscilloscope (500 MHz, 5 GSa/s, 30 MHz-ARB, 4 channels)	01	10.00
148.	Dynamic Spectral Analyzer (25.6 kHz-4 channel, 90 dB, 6 Ms)	01	8.00
149.	Signal conditioner (8 channels, +/-10V, 30 kHz)	01	8.00
150.	Power Amplifier (150V, 70 kHz,-3dB)	01	9.00
151.	Linear stage (X-Y axis) (1 meter slide, 25 rotation/2.5 cm)	01	3.00
152.	MEMS High-G Shock Accelerometers (0-20000g, 60 kHz)	01	16.00
153.	High Frequency, General Purpose Pressure Sensors (345 kPa, 500 kHz)	01	16.00
154.	Preamplifier 1/4" Free-field Microphone (6 Hz to 20 kHz, Pre-polarized)	01	16.00
155.	High Frequency, General Purpose Force Sensors (20 KN, 100 kHz)	01	8.00
156.	High Frequency, Piezoelectric strain sensors (50mV/ μ strain, 10,000 g pk)	01	8.00
157.	Time-of-arrival, ICP® Micro-pressure Sensors (345 kPa, 100 kHz)	01	8.00
158.	Ballistic peak pressure monitoring system (Voltage gain	01	10.00

	0.1-1000, 50 kHz)		
159.	Piezo-Actuator (35 µm-stroke length, 50 kHz-resonating frequencies)	01	11.00
160.	Academic licence (Annual Subscription based) of LS-DYNA	01	6.00
161.	Boundary Layer Wind Tunnel	01	150
162.	Pressure Scanner	01	20.00
163.	Hot Wire Anemometer	01	10.00
164.	High-frequency force balance equipment	01	9.00
165.	Smoke Detector and Particle Image Velocimetry	01	50.00
166.	High-frequency Camera	01	2.00
167.	Lab Furniture (Stool, Table, storage, chair etc.)	-	1.00
168.	Laboratory minor equipment's (Fan, exhaust fan, wood planer, Bar locator, battery charger, distance meter, power supply, 3phase motor, trolley, strain gauges)	-	2.00
169.	Other necessary minor instruments (Core cutting machine, Steel Cutter, Grinder, Drilling machine, Color meter, moisture meter, stone cutter, grinder, DSLR camera, humidity chamber etc.)	-	4.00
BMES			
170.	XRD	1	150
171.	EDAX for FESEM	1	30.00
172.	FTIR	1	30.00
173.	Concrete durability test kit	1	2.00
174.	Gold Sputter coater	1	11.00
175.	Portable thermal conductivity meter	1	11.00
176.	Temperature data logger system	1	10.00
177.	Furnace for brick baking 1200 °C for bulk firing	1	5.00
178.	Oven	2	1.00
179.	Semi-analytical balance	2	1.00
180.	BET for surface area analysis	1	50.00
181.	Spray Dryer	1	10.00
182.	Minor equipment's such as pH, printers, magnetic stirrers, water bath , glassware, stationeries etc.		5.00
183.	CO2 analyser	1	2.00
184.	UV/VIS/NIR spectroscopy Diffuse Reflectance spectrometer	01	12.00
185.	Whiteness meter	01	0.90
186.	FT IR / diffuse reflectance IR spectroscopy	01	23.00
187.	Manual carbonation chamber with cylinder and CO2 detector fitted with it	01	6.00
188.	Potentiostat/ Galvanostat portable	01	12.00
189.	Shredder machine for crushing solid scrap samples into fine particle	01	10.00
190.	Powder grinding machine	01	10.00
191.	Oven	01	3.00
192.	Furnace	01	8.00
193.	N2, O2, CO2 cylinder with complete valve, regulator set up	01	4.00
194.	Fridge	01	0.50
195.	Water distillation unit	01	2.00
196.	Rotavapour for synthesis	01	3.00
197.	Zeta potential measurement /Electrophoresis instrument set up	01	7.00
198.	Cyclomixer,	01	0.40
199.	Heavy duty paint mixer Electric Multipurpose Stirring Machine Rotary Tool	01	0.20
200.	Grinding machine 4"	01	0.20
201.	Glue gun	01	0.10
202.	Blower/dryer	01	0.10
203.	Ultrasonicator	01	0.80
204.	Centrifugation apparatus	01	0.40
205.	Weighing machine	01	0.40
206.	TDS, pH, Ionic conductivity meter, other minor physical parameter	Per unit	0.50

	measurement instrument		
207.	mixer grinder	01	0.10
208.	Electric water boiler (Glass) transparent	01	0.10
209.	DC source 1-12 volts with digital voltage, ampere readings	01	0.50
210.	Multimeter for Volts/Amp Measurement reading	01	0.10
211.	Refrigerated centrifuge	01	7.00
212.	Autoclave	01	3.00
213.	Laminar air flow cabinet	01	3.00
214.	Distillation assembly	01	3.00
215.	Deep freezer (-80 ^o c)	01	18.00
216.	Deep freezer (-20 ^o c)	01	2.00
217.	Pan mixer	01	1.00
CA&R			
218.	Workstations	10	25.00
219.	Actuators	10	20.00
220.	Controllers	20	20.00
221.	Sensors	50	30.00
222.	Standard Mechanical items	30	25.00
223.	PCB design machine	1	15.00
224.	All in one CNC machine	1	25.00
225.	Mechanical Handling tools	15	20.00
226.	Data loggers	2	20.00

B (b)	CONSUMABLES
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Sr. No.	Category	Expected Procurement Value (Rs. In Lakhs)
ACSC		
1.	R&D Consumables for closed loop systems Furnace- Heating Element, Tensile Grip for UTM/CTM, Load Cell setup for Hyd. Cylinder, LVDT Setup for Hyd. Cylinder, Loading Frame Setup, Loading Frame Repair, Electrode for Chloride Ion Meter, Servo Valve for Existing Pump, Furnace 1800°C (Elements, Base, Alumina Crucible Different Capacity, Etc.), Curing Tank (Element, RCCB, Relay, Temperature Sensor, Etc.), CTM (Hydraulic Oil), Concrete Mixer Gearbox (Hydraulic Oil, Hydraulic Pipe, Etc.), Foam Generator (Air Pressure Regulator, Relay, Etc.), Ball Mill Balls of Different Sizes, pH & TDS Meter Electrode, Distillation Plant (Accessories, Elements, Etc.), Oven (elements, Temp. Controller & Sensor, etc.), Abrasion testing machine (abrasion powder, Counter, etc.), UV Chamber (UVA/UVB Lamps, Adapter, Lamp Ignitor, etc.)	69.00
2.	Chemicals Phenolphthalein, NaCl, NaOH, Nitric Acid, Salt, KOH, CaOH ₂ , Acetone, Aluminium (Metal) Fine Powder, Calcium Carbonate, Calcium Chloride, Calcium Sulphate Dihydrate, Anhydrous Calcium Chloride, Calcium Hydroxide (Hydrate Lime), Calcium Oxide, Silica Fume, Hydrochloric Acid, Nitric Acid, Hydrofluoric Acid, Isopropyl Alcohol, Murexide, Methyl Orange, Isopropyl Alcohol, Admixtures, Foaming Agent, Resin & Hardener, Lacquer, Boric Acid Powder, Sodium Hydroxide Pellets, Hydroxy Propyl Methyl Cellulose, Propanol, Glassware Cleaning Agent, Sulphuric Acid, Polyvinyl Alcohol, Silver Nitrate, Sodium Sulphate, Kaolin, Potassium Hydroxide, Propylene Glycol, Nitro Benzene, Sodium Polyacrylate, Hydrogen Peroxide, etc., acetone and isopropyl alcohol, metals such as fine powder aluminium, calcium compounds like calcium carbonate, calcium chloride, calcium sulphate dihydrate, anhydrous calcium chloride, calcium hydroxide, and calcium oxide. Additionally, there are substances like silica fume, hydrochloric acid, nitric acid, hydrofluoric acid, murexide, methyl orange, admixtures, foaming agents, resin and hardener, lacquer, boric acid powder, sodium hydroxide pellets, hydroxypropyl methyl cellulose, propanol, glassware cleaning agents, sulfuric acid, polyvinyl alcohol, silver nitrate, sodium sulphate, kaolin, potassium hydroxide, propylene glycol, nitrobenzene, sodium polyacrylate, hydrogen peroxide, and more. Biological supplies may include biochemicals, biochemical kits and enzymes, diagnostic kits, sequencing materials, oligonucleotides, Coupling agent, alcohol, buffers solutions, acids alkalis, formic acid, sodium chlorite, sodium hypo chlorite, polymers, indigenous chemicals and others	56.00

3.	<p>Other Consumables</p> <p>Aggregates, Steel Plates, Steel Sections, Steel Tubes, Reinforcements, Binding wires, Cement, Sand, Super Plasticizer, Cutting/grinding Blades, Epoxy, latex, Hydraulic Oil, Gear Oil, Bricks, Textiles, FRP, Grids, Adhesives of any , Strain Gauges, Wrench set, Electrical/Strain Gauges Wires, Bolts, Pipes, Nuts, Fabrication of Loading Frame, Test bed, Extension box, Oil Filter, Seal, Pressure Gauge, Crack Meter, DPT Kit, Welding Gauge, Welding Rods, Adhesive Tapes, White Putty, Water Pipe, Cotton/Coir bags, Paints, Primer, POP, Brushes, Oil, Moulds, Bolt and Nuts, Chain Pulley, Sensors-Humidity, Thermal, Temp, Creep Setup fabrication, Hyd. Pipes, Couplers, U Bolts, Anchors, Injection able Adhesives, Grease , Steel/Concrete Drill Bits, Anchor Rods/Bolts, Hinges, Water Pump, Trowel Set, Spade, Scoop, Gloves, Shoes, Helmets, Masks, Googles, Safety Nets, Safety Guard Dress, Lab Coats, Aprons, heating elements, Coils, Fibres, Mineral Admixtures, Graphene, Glass wool, Steel Wool, Computer Accessories, Acrylic Sheets, Steel Mesh, White board, Notice board, OPC 43 Grade Cement, PPC Cement, and White Cement, as well as POP (Plaster of Paris), pigment, GGBS (Ground Granulated Blast Furnace Slag), and fly ash. Other essential items comprise realizing agents, sand, coarse sand, aggregates, gunny bags, ziplock bags, HDPE bags, LDPE bags, filter paper, and various tools like tongs, clamps, spatulas, scoops, flat spoons, spoon spatulas, and ointment spatulas. Additionally, safety equipment like examination gloves, masks, PPE kits, lab safety shoes, and lab safety hats are crucial for maintaining a safe working environment. R&D raw materials and round PP disposable caps are also part of the inventory for research and development activities.</p>	88.00
4.	<p>Glass wares (ex- name the different glass wares)</p> <p>Bottles, glasses, Beakers (various capacities) Desiccators Flasks, Beaker's Different Capacity, Desiccators Different Capacity, Dishes, Measuring Cylinder, Pipette Laboratory Bottles, Reagent Bottles, Specific Gravity Bottle (Pyknometer), Weighing Bottles, Gas Sampling, Tubes, Burettes, Autoburettes, Cones, Condenser, Viscometer, Volumetric Flask, Round Bottom Flask, Conical Flask, Glass Filtration Assembly, Mortar & Pestle, Weighing Scoop, Museum Jars, Funnels ,Stirrer Rods, Glass Dryer. Quartz Ware: Beakers, Dishes & Basin, Crucible, Lid, Circular Capsule, Slides, reaction kettle, Soxhlet extractor, funnels</p>	39.50
5.	<p>Plastic wares (ex- Name the different plastic wares)</p> <p>Plastic Tub, Buckets, Mugs, Containers, bottle top dispensers, plastic wash bottle, beakers of different sizes, silicone tubing, electronic micropipette, water bottles, LDPE carboy with stopcock, aspirator bottle with stopcock, air-tight containers of different sizes, sample holder and storage, unbreakable plastic tubs, buckets, measuring cylinders, Face shield etc</p>	22.70
6.	<p>Toner Cartridges.</p> <p>Black & White, Colour Powder and Ink Cartridges , Refilling, Drum Change</p>	13.50
7.	<p>Batteries, etc.</p> <p>UPS batteries</p>	9.30
8.	<p>Gases (ex- tentative names) Liquid Nitrogen, CO2, Nitrogen gas</p>	8.30
9.	<p>Maintenance/AMC/repairing of existing equipment</p> <p>AMC of UTM, Maintenance of CTM, Hyd. Cylinder, Hyd. Pump, Load Cells, LVDTs, DAQs, Environmental Chamber (PLC Problem, Humidity Sensor, etc.); Dilatometer (Calibration of Equipment, Service, software upgrades, etc.); UV Chamber (Calibration of Equipment, Service, software upgrades, etc.); CTM (Calibration of Equipment, Service, software upgrades, etc.); MOR (Calibration of Equipment, Service, software upgrades, etc.); C-Therm (Calibration of Equipment, Service, software upgrades, etc.); Accelerated Curing Tank (Calibration of Equipment, Service, etc.)</p>	64.5
10.	<p>Stationery items (ex- name a few)</p> <p>Papers, Photo Print Sheets, Markers, Tape, Scale, Files, Note Pads, Registers, Markers, Ink, Ink Pad, Stamp, Stapler, A4 sheet, bond paper reams, register/noting pads, stapler pins, glossy sheets, pens, permanent markers, whiteboard markers, sticker sheets, binding sheets, tape, highlighters, and more,</p>	17.10
11.	<p>IT / software-related Items (Name the items required during year)</p> <p>Seismo Struct, Seismo Build, FRP Designer, Antivirus, MS office, etc., 3D designing Software, etc.</p>	15.50
12.	<p>Furniture (Name the items required during year)</p> <p>Visitor Chair, Officer Chair, Tables, Office Chairs, Tables, Sofa set, File rack, Almira, Rack, Office stool, Conference table</p>	34.50
13.	<p>Electric Items (Name the items required during year)</p> <p>LED Lights, Junction box for extension, Heating Elements, Switches, Wires, Exhaust Fan, Air Circulator, LED light, circulated room heater .</p>	8.65
GEGH		

14.	R&D Consumables for closed loop systems (bycyclictri-axial system, consolidation apparatus, direct shear, data logger, LVDT, etc.)	20.00
15.	Chemicals (sodiumhexametaphosphate, solvents, PluronicF-127, tributylphosphate, lime, liquid Nitrogen, etc.)	20.00
16.	Other Consumables (Strain gauges, carbon black, nano carbon, nano silica, HDPE powder, PPpowder, Copper plates, sand, adhesive, porous stones, gaskets, membrane, cement, multimeter, soldering unit, etc.)	60.00
17.	Glasswares (Dessicator, Beaker, etc.)	8.00
18.	Plasticwares (Connectors, etc.)	4.00
19.	Toner Cartridges.	4.00
20.	Batteries, etc.	4.00
21.	Maintenance/AMC/repairing of existing equipment	20.00
22.	Stationery items (A4Budle, Acrylic Paint, Adhesives, Sticky Notes, Pen, etc.)	4.00
23.	IT/software-related Items (Antivirus, Pen Drive, Portable Disk, New/ Upgradation of Software, etc.)	150
24.	Furniture (Chairs, Tables for labs, etc.)	7.50
25.	Electric Items (Extension Box, etc.)	4.00
FSE		
26.	R&D Consumables for closed loop systems (by Equipment name)	5.00
27.	Chemicals (ex.-Name The different chemicals like solvents, Biochemical kits & enzymes, diagnostic kits, Sequencing, oilgonucleotides, etc)	50.00
28.	Other Consumables (ex-Insecticide, Raw Materials, Packing Material, Column, Syreinges, Transriptome and metaenome analysis, Metabolites analyses, Farm Consumables, TLC Plates, filter papers, Planting materials, Seeds, Chemical standards, Essential oils, Standard aroma molecules, animal feed, Cell lines, agriculture accessories, etc.)	50.00
29.	Glass wares (ex-name the different glass wares)	1.50
30.	Plastic wares (ex-Name the different plastic wares)	0.25
31.	Toner Cartridges	0.75
32.	Batteries, etc.	2.50
33.	Gases (ex-tentative names)	1.50
34.	Maintenance/AMC/repairing of existing equipment	15.00
35.	Stationery Items (ex-name a few)	5.00
36.	IT/Software-related items (Name of the items required during year)	0.50
37.	Furniture (Name the items required during year)	0.25
38.	Electric items (name the items required during year)	0.25
Shorab Jain		
39.	Toner Cartridges.	1.00
40.	Stationery items (ex- name a few)	1.00
41.	IT / software-related Items (Name the items required during year) AMC of ANSYS /other Softwares	15.00
42.	Furniture (Name the items required during year)	1.00
APEE		
43.	R&D Consumables for closed loop systems (by equipment name)	100
44.	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	50.00
45.	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)	50.00
46.	Glass wares (ex- name the different glass wares)	5.00
47.	Plastic wares (ex- Name the different plastic wares)	5.00
48.	Toner Cartridges.	20.00
49.	Batteries, etc.	5.00
50.	Gases (ex- tentative names)	2.00
51.	Maintenance/AMC/repairing of existing equipment	200
52.	Stationery items (ex- name a few)	10.00
53.	IT / software-related Items (Name the items required during year)	20.00
54.	Furniture (Name the items required during year)	50.00
55.	Electric Items (Name the items required during year)	50.00
Library		
56.	Toner Cartridges.	2.00
57.	Batteries, etc.	4.00
58.	Maintenance/AMC/repairing of existing equipment	4.00
59.	Stationery items (cello tape, Xerox paper, fevicol, permanent marker etc.)	1.00

60.	IT / software-related Items (latest configuration Server with UPS, Library software & Institutional Repository software, software AMC etc.)	5.00
61.	Furniture (Book shelves, magazine and newspaper display racks)	3.00
62.	Electric Items (Lights, Air conditioners, heaters and blowers for library both reading halls)	6.00
HSS		
63.	R&D Consumables for closed loop systems (by equipment name)	10.00
64.	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	5.00
65.	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)	100
66.	Glass wares (ex- name the different glass wares)	1.00
67.	Toner Cartridges.	2.00
68.	Batteries, etc.	2.00
69.	Maintenance/AMC/repairing of existing equipment	5.00
70.	Stationery items (ex- name a few)	1.00
71.	IT / software-related Items (Name the items required during year)	2.00
72.	Furniture (Name the items required during year)	5.00
73.	Electric Items (Name the items required during year)	5.00
Store & Purchase		
74.	Chemicals (ex – Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.	35.00
75.	Other consumables (ex – Insecticide, raw materials, packing materials, column, syringes, Transcriptome and Metagenome analysis, Metabolites analyses, Farm consumables, TLC Plates, Filters papers, Planting materials, seeds Chemicals, standards, essential oils, standard aroma molecules, Animal feed, Cell lines, Agriculture accessories, etc.) DAP, Urea, Nuwan, Choloripyriphos, Metacid, Bawastin etc.	60.00
76.	Glass wares (ex – name the different glass wares) Beaker, Conical Flask, Measuring Flask etc.	35.00
77.	Plastic wares (ex- Name the different plastic wares)	7.50
78.	Toner Cartridges. Q2612, 436, 7115, canon 328, 337, 331	35.00
79.	Batteries, etc. LED Acid Battery 150Amp, SMF Batteries	15.00
80.	Gases (ex- tentative names), Oxygen, Nitrogen, Helium etc.	12.50
81.	Maintenance/AMC/repairing of existing equipment	60.00
82.	Stationery items (ex- name a few)	60.00
83.	IT / software-related items (Name the required during year), Antivirus, Autocad, Educational software	110
84.	Furniture (Name the items required during year)	60.00
85.	Electric items (Name the items required during year)	35.00
SE		
86.	R&D Consumables for closed loop systems (by equipment name)	50.00
87.	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	60.00
88.	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)	200.00
89.	Glass wares (ex- name the different glass wares)	50.00
90.	Plastic wares (ex- Name the different plastic wares)	40.00
91.	Toner Cartridges.	15.00
92.	Batteries, etc.	5.00
93.	Gases (ex- tentative names)	5.00
94.	Maintenance/AMC/repairing of existing equipment	50.00
95.	Stationery items (ex- name a few)	15.00
96.	IT / software-related Items (Name the items required during year)	50.00
97.	Furniture (Name the items required during year)	20.00
98.	Electric Items (Name the items required during year)	20.00
BMES		
99.	R&D Consumables for closed loop systems (by equipment name)	42.00
100.	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s,	49.00

	Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	
101.	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)	35.00
102.	Glass wares (ex- name the different glass wares)	21.00
103.	Plastic wares (ex- Name the different plastic wares)	15.00
104.	Toner Cartridges.	13.50
105.	Batteries, etc.	13.00
106.	Gases (ex- tentative names)	24.00
107.	Maintenance/AMC/repairing of existing equipment	104.5
108.	Stationery items (ex- name a few)	7.50
109.	IT / software-related Items (Name the items required during year)	42.00
110.	Furniture (Name the items required during year)	2.50
111.	Electric Items (Name the items required during year)	13.50
CA&R		
112.	R&D Consumables for closed loop systems (by equipment name)	20.00
113.	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	20.00
114.	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)	30.00
115.	Toner Cartridges.	3.00
116.	Batteries, etc.	5.00
117.	Maintenance/AMC/repairing of existing equipment	15.00
118.	Stationery items (ex- name a few)	2.00
119.	IT / software-related Items (Name the items required during year)	20.00
120.	Furniture (Name the items required during year)	10.00
121.	Electric Items (Name the items required during year)	10.00

Glass wares (ex-name the different glass wares) Glass wares (ex-name the different glass wares)

Note:

- The above procurement plan is dynamic and could be revised as often as may be necessary with the approval of the Competent Authority.
- The procurement of the chemicals & consumables would be based on the need and ongoing requirement of R&D activities of Lab/Instt.
- The procurement is subject to the fund's availability/release of sufficient grant from CSIR / funding agency.
- The indicated procurement value is an estimate only.