

CSIR-INDIAN INSTITUTE OF PETROLEUM, DEHRADUN
PROCUREMENT PLAN

Last updated on 09 September 2026

A	FOR THE FINANCIAL YEAR 2026-27
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A(a)	EQUIPMENT
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(i)	Equipment: Out of CSIR Infra Funds
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Sr. No	Name Category of Equipment/Vehicle Item	Quantity (Nos.)	Approximate Cost (in lakh)
1	20 HP, 3 Phase, Submersible Pump Set/15 KW/20 HP	2	1.70
2	50 Hp, 3 Phase, Submersible Pump Set/37 KW/50 HP	1	2.30
3	15 Hp, 3 Phase, Mono block Pump set / 11 KW/15 HP	2	1.70
4	50 KVA, 3 Phase, Servo Voltage Stabilizer	1	1.50
5	Multi-channel data acquisition system	1	7.00
6	Wind tunnel with air heater and accessories	1	4.00
7	Hot plate	1	1.00
8	Digital multimeter	1	0.50
9	Pitot tube	1	0.50
10	Thermal Imaging Camera	1	10.00
11	Thermoelectric generator	60	1.00
12	Heat flux sensors	5	2.00
13	Programmable DC electronic load	1	1.00
14	DC power analyzer	1	2.00
15	Catridge heater with PID control	1	0.40
16	Water chiller/cooling unit	1	1.00
17	LCD Display Module	1	0.30
18	12V 100AH Batteries (34 No.s) with Stand and MCCB	1 Set	4.00
19	Automatic polishing machine	1	7.00
20	Sievert type apparatus	1	80.00
21	Flow Calibrator	1	50.00
22	Process Calibrator	1	3.00
23	Thermal Imager	1	2.00
24	Hot Air Rework Station	1	0.50
25	Digital Storage Oscilloscope	1	0.70
26	Bench Multimeter	1	0.40
27	LCR Meter	1	0.30
28	Precision Soldering Station	1	0.50
29	PCB Microscope	1	0.50
30	Bench DC Power Supplies	1	1.00
31	Function Generator	1	0.50
32	Logic Analyzer	1	1.00
33	Pressure Calibration Pumps	1	0.30

34	Temperature Calibration Accessories	1	1.00
35	PLC/SCADA Trainer Kit	1	10.00
36	Fabrication Unit (Additive Manufacturing)	1	2.00
37	Humidity Chamber	1	1.50
38	PID Trainer Kit	1	3.00
39	Miscellaneous accessories/components as and when required.	1	3.00
40	SITC of 5.5 TR Ductable Air Conditioning Units including accessories	2	9.50
41	Electronic Leak Detector	1	0.05
42	Digital Manifold Gauge Set	1	0.25
43	JET Spray for Cleaning of AC's	1	0.10
44	Flaring Tool Kit	1	0.04
45	Digital Clamp Meter	1	0.04
46	Digital Multi Meter	1	0.20
47	Digital Thermometer	1	0.50
48	Digital gun thermometer	1	0.15
49	Portable Ladder	1	0.10
50	Portable Arc Welding Machine	1	0.10
51	Heavy Duty Tool Cabinet	1	0.15
52	File Cabinet/shelf	2	0.30
53	Vacuum-insulated storage tank	1	20.00
54	Pump for LN2 plant Chiller	1	2.00
55	Micrometers	1	0.10
56	Vernier calipers	1	0.05
57	Dial indicators	1	0.50
58	Machine vice.	1	0.50
59	Supply, Installation, testing & Commissioning of 1 Ton Capacity Goods lift (MRL Machine Room Less)	1	2700000.00
60	Fire and Smoke Sensors with Panel	1	200000.00
61	Office Tables	2	30000.00
62	Office chairs	8	40000.00
63	Wall mounted file cabinets	5	50000.00
64	Chemical Cabinet	1	30000.00
65	Split AC 2.0 Ton (Hot & Cold)	1	60000.00
66	UPS-15KVA (3 Phase) with batteries	1	250000.00
67	Refrigerator (500 Ltr.)	1	60000.00
68	Spot fume extractor with blower	2	300000.00
69	Desktop Computer (i5 processor or better)	1	70000.00
70	Industrial Air cooler	2	80000.00
71	Settling Tank for bio-oil	1	500000.00
72	Pump for bio-oil	1	500000.00
73	Distillation unit (30 Ltr. Capacity)	1	1500000.00

(ii)	Equipment: Out of CSIR Funded Projects
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Sr. No	Name Category of Equipment/Vehicle Item	Quantity (Nos.)	Approximate Cost (in lakh)
1	Hydrogen Reactor - hydrogen charging and testing reactor	1	10.00
2	EV Motor, Controller and accessories	2	1.10
3	Sound level and vibration measurement system	1	20.70
4	ACE FCC Unit	1	220.00
5	Air Release Tester	1	20.00
6	Apparent Viscosity of Grease	1	50.00
7	Auger reactor	1	20.00
8	Bench scale continuous unit	1	200.00
9	Cryogenic gas mixture freezing point and solubility Experimental Setup	1	55.00
10	DHA	1	55.00
11	Dynamic Shear Rheometer (DSR)	1	70.00
12	ED-XRF	1	55.00
13	Experimental furnace for coal biomass pulverized combustion system with instrumentation and accessories	1	30.00
14	Facility for CEMS (continuous emissions monitoring system)	1	100.00
15	Gas reservoir	1	25.00
16	GC-VUV	1	250.00
17	HPLC RI ELSD UV-Vis	1	70.00
18	Low Temperature Torque Tester	1	50.00
19	Minor equipments (less than 20 lakhs)		115.70
20	Multiple gas analyzer for Pilot plant	1	50.00
21	NMR 400 MHz	1	650.00
22	Online gas chromatograph- Refinery gas analyser	1	65.00
23	Oxidation and thermal stability analyzer	1	25.00
24	Reactor for bio-jet plant	1	20.00
25	Synthesis gas compressor cum storage	1	100.00
26	UV-IR Flame Detection system	1	6.00
27	Feed Pump	1	2.50
28	High pressure pump	1	4.50
29	Hydrogen MFC	2	7.00
30	Spare parts of pilot plant, hydrogen generator and distillation columns falling under capital head	-	9.00
31	Skid mounting cooling system experimental setup	1	60.00
32	Polymerization Reactor 100 Lt.	1	40.00
33	Polymerization Reactor 5 Lt.	1	10.00
34	Triple Bed reactor System	1	50.00
35	Microprocessor based lab-scale fixed bed micro reactor unit	1	50.00

36	Hydrogen charging and testing reactor	1	20.00
37	Noise and vibration measurement system with software, EV motor and controller set	1	20.00
38	L5 category Auto (D+5)	1	5.00
39	Online gas analyser (Customized)	1	45.00
40	Micro Activity Unit	1	10.00
41	High-capacity feed pumps	2	10.00
42	Reactor furnace	2	12.00
43	Chiller	2	10.00
44	Two wheeler	1	2.00
45	Automatic hydraulic press	1	4.00
46	Potentiostat/Galvanostat module/channel for electrochemical work station	1	6.50
47	Automatic polishing machine	1	7.00
48	Omics Box	1	10.00
49	Refrigerated Thermostatic Circulating Bath (-30 to 120 Degree C)	1	8.00
50	Laptop for office work	5	5.70
51	Pressure regulators for Cylinder	1	1.80
52	Vacuum Pump	1	4.00
53	Air Conditioner – Cassatte type	1	1.50
54	Liquid Nitrogen storage Can	1	0.80
55	Oil Vacuum Pump	1	3.00
56	Repairing of fume hood with installation of spot extractor	1	4.00
57	Chiller	1	5.00
58	HPLC pump	1	5.00
59	Gas meter	1	6.00
60	H2 MFC	1	5.00
61	Back pressure regulator	1	4.00
62	Penetrometer	1	12.00
63	Fuming cupboard	1	10.00
64	Heat exchanger	1	15.00
65	Vapor - Liquid Equilibrium (VLE) experimental set-up	1	16.00
66	Magnetic Stirrer with Hot Plate	4	0.79
67	Rotary Evaporator (RE2BL)	1	2.95
68	Diaphragm Vacuum Pump (AD2C)	1	1.66
69	Self propelled weeder	1	0.80
70	High-pressure drilling fluid setup	1	15.00
71	Power Analyser	1	2.50
72	X-ray Photoelectron Spectroscopy (XPS)	1	650.00
73	MWD XRF	1	100.00
74	Double Beam UV Vis DIR Spectrometer.	1	50.00
75	GC-Simulated distalation	1	50.00
76	Micro Distillation Unit	1	60.00

77	Sievert type apparatus	1	80.00
78	Cooling System Experimental Setup	1	65.00
79	Experimental Setup: Multipurpose Reactive distillation based system setup	1	100.00
80	Vapour Liquid Equilibrium Reactor System	1	50.00
81	Erosion wear tester	1	60.00
82	Life performance of greases	1	120.00
83	High pressure and high temperature TG analyzer	1	200.00
84	Extractive pyrolysis pilot plant reactor with solvent recovery	1	250.00
85	Optical microscope (plane polarized)	1	50.00
86	Flow loop for crude oil	1	75.00
87	High speed wobble index/BTU/calorific value/combustion air requirement index measurement facility	1	100.00
88	High-temperature calcination unit	1	20.00
89	Static line mixture for the continuous preparation of Diesel methanol blend	1	40.00
90	Arc GIS	1	25.00
91	Superflow designer software	1	20.00
92	Jaw Crusher	1	22.00
93	VLE Experimental setup	1	20.00
94	High temperature RI	1	20.00
95	Modulating Duty Type Pneumatic Actuated 2 Way Globe Control Valve	1	0.61
96	Rotary Slasher	1	0.60
97	Thermal Imager	1	2.00
98	Portable process calibrator	1	3.00
99	Multi Effect Evaporator	1	19.00
100	Non-refrigerated Centrifuge	1	3.00
101	Tubular Furnace	1	3.00
102	Ultra purified water generation unit/High quality Water purification system	1	4.75
103	Spheronizer-extruder set up	1	5.00
104	MFC	2	3.00
105	Upgradation of existing old equipment computer/laptop with latest software and CPU	2	2.25
106	Magnetic Stirrer with Ceramic Coated Aluminium Alloy Top Plate,	2	1.00
107	Overhead Stirrers	2	3.00
108	Ultrasonic Bath (Sonicator)	1	0.50
109	Cryocans	1	1.00
110	Refrigerated centrifuge	1	6.50
111	Laminar Air bench	1	1.50
112	Muffle Furnace	1	5.00
113	Hot air oven	2	1.00
114	Gas purification panel	1	2.00

115	Hot air Blower	2	0.30
116	Fume hood	1	3.00
117	Chiller	1	3.00
118	Hot plate/ heating mantle with stirring	2	0.70
119	Furnace	1	4.75
120	Rotary oven	1	4.75
121	Measuring balance	1	4.00
122	Mass flow controllers	2	4.00
123	Gas regulators	1	1.00
124	Magnetic stirrers with hot plate	2	2.00
125	Spray coater	1	0.50
126	Gas detector	1	1.00
127	Ultrasonic bath	1	0.50
128	Dip coater	1	0.50
129	Vacuum pump controller	1	1.00
130	Rejuvenation and upgradation of methanol Rig	1	48.60
131	Cryocans	1	1.00
132	Pressure regulators	4	1.20
133	Micro-batch reactor	1	12.00
134	High Pressure benchtop reactor	1	19.00
135	MFCs with controller	2	2.00
136	Gas flow meter	1	0.50
137	Potentiostat/Galvanostat module/channel for electrochemical workstation (With 1 unit of electrochemical cell and electrodes)	1	6.50
138	Tap Density Tester	1	2.50
139	Vacuum Pump	1	0.40
140	HPLC	1	67.25
141	Bench scale reactor	1	26.00
142	GC-DHA	1	30.00
143	Workstation with software/database	1	6.94
144	Transfer Pump	1	1.50
145	Pump (Chiller)	1	0.50
146	Gas Meter	3	10.00
147	Air Compressor	1	7.00
148	Computer System	4	4.00
149	High pressure batch reactor	1	40.00
150	Furnace	1	4.50
151	KF titrator	1	2.00
152	Rotavapour with assembly	1	4.50
153	Vacuum pump with spare parts	1	2.50
154	Surface tension analyser	1	5.00
155	Surface tension analyser	1	5.00

156	Barrel heater	1	1.00
157	Chain pulley	1	0.50
158	Weed remover	1	0.50
159	Biomass harvester	1	0.60
160	EV Motor Test Bench	1	150.00
161	Two wheeler engine test bed	1	50.00
162	Hardware-In-Loop (HIL) system for EV testing and energy studies with complex driving scenarios.	1	95.00
163	GC-NCD	1	75.00
164	Grazing Incidence FTIR integrated with High-temperature	1	60.00
165	GC -MS	1	70.00
166	ASPEN One Engineering Desktop (one license for 5year period)	1	110.00
167	High Pressure, Low-High temperature adsorption isotherm and kinetics measurement unit	1	350.00
168	Tribo-tester	1	100.00
169	High pressure fixed bed reactor	1	150.00
170	Fully automated water cooled experimental furnace with complete instrumentation and data acquisition ssytem	1	100.00
171	Flame holding test rig at elevated pressure with material exposure test rig	1	200.00
172	PLIF (Pressure laser induced flourescence	1	300.00
173	Biomass gasifier	1	30.00
174	Catalyst tableting machine	1	25.00
175	Automatied corrosion bath instrument with corrosion analyzer as per ASTM D665	1	30.00
176	Experimental Setup for Falling Film Hydrodynamic Study	1	25.00
177	Skid mounted Lab-scale Pervaporation system	1	30.00
178	GC-FID system	1	40.00
179	Electrical Conductivity Tester	1	30.00
180	High-Pressure Bench scale Biomass Pyrolysis unit with liquid pumping facility	1	35.00
181	UV-Vis spectrophotometer with Peltier and solid probe	1	40.00
182	Bench scale catalytic membrane set-up	1	40.00
183	Bench top distillation unit (200 ml)	1	30.00
184	High pressure batch reactor	1	40.00
185	Island Bench	2	6.00
186	Oven	1	3.50
187	Deep Freezer	2	4.00
188	Controller Omron E5DC-RX2ASM-800	1	0.15
189	Incubator shaker	1	4.00
190	Smoke meter	1	0.50
191	Standard - Flat Force-draft Multi-Fuel Chulla	20	1.50
192	Modulating Duty Type Pneumatic Actuated 2 Way Globe Control Valve	1	0.80
193	Vortex Flow Meter (Steam Flow Meter)	1	1.20

194	FO/LDO burner with heating system	1	2.00
195	Furnace oil flow meter/Series 6600 Oscillating Piston Flowmeter DN06 SS Remote	1	2.00
196	Air flow meter	1	2.00
197	Furnace oil pump	1	0.50
198	Water Pump	1	0.50
199	VFD controller for blower and pump	4	0.80
200	Water flow meter	1	0.50
201	Pressure gauges	4	0.60
202	Steam throttling calorimeter	1	1.20
203	Opacity meter	1	1.50
204	Mass flow controller-Multi-gas	2	5.00
205	Hydrogen Cylinder gas Bank	1	3.00
206	Exhaust blowers/fans	3	1.00
207	After treatment system components	1	5.00
208	Channel gas flow system	1	4.00
209	Thermo hygrometer	1	0.96
210	Workstation with software/database	1	6.94
211	Vapor Liquid Equilibrium (VLE) experimental set-up along with its accessories	1	16.00
212	Oxidation stability analyzer with spare parts	1	20.00
213	KF titrator	1	2.00
214	Vacuum pump/ Rotary vane vacuum pump) with spare parts	3	7.50
215	Temperature controlled Cooling system/Circulating Chiller	1	3.50
216	Rotary Evaporator with assembly (Diaphragm Vacuum Pump)	1	4.50
217	Heating mantle with a stirrer and temperature control	1	1.50
218	Minor equipment, like Glass reactors etc. including spare parts of GC, HPLC, Reactors, etc. including spare parts		4.00
219	Calibration Weights or Weights Sets	1	0.40
220	Centrifuge	1	2.00
221	Incubator shaker	1	4.00
222	Autoclave	1	1.00
223	Analytical Balance	1	1.00
224	Laminar Flow Cabinet	1	1.00
225	Laboratory-scale Granulator	1	3.00
226	LED Computer Monitor 24" with Integrated Speaker and Webcam	1	0.25
227	Industrial Liquid Fuel Burner	1	2.00
228	Empty Carbon dioxide (CO2) gas cylinder	8	1.00
229	Split Tube Furnace	1	8.00

230	N2 and H2 Gas-MFC	1	2.00
231	Vertical Autoclave	2	5.00
232	Empty Oxygen (O2) gas cylinder	8	0.96
233	HPHT Filter Press	1	5.00
234	Mass flow controllers & reactor accessories:	1	3.00
235	Quartz reactor with cartridge	1	2.00
235	Gas cylinders	1	2.00
237	Computer workstation for reactor automation	1	1.50
238	Pump	1	1.50
239	ED-XRF	1	55.00
240	Manual Refractometer for Wax Samples	1	0.55
241	Air Compressor	1	3.50
242	Chiller (Refrigerated/ heating Circulator)	1	5.00
243	Mass Flow Controller	1	1.50
244	Muffle Furnace	1	5.00
245	Circulating Cooling Chiller	1	1.50
246	D86 Distillation Unit	1	7.00
247	Batch reactor	1	15.00
248	Vacuum Pump	1	0.15
249	pH Meter	1	0.70
250	Weigh balance	1	0.50
251	MFC	5	3.00
252	PID Controller	6	1.20
253	CO Gas detector	4	0.90
254	Moisture Analyser For Liquids And Solids	1	1000000.00
255	Recirculator Chiller	2	500000.00
256	Minor Capital items (Viscometer, Vacuum Pumps, Heating Mantles, Weighing Balance, Air Compressor, RO water purifier, Biochar packing unit)		500000.00
257	Electro Chemical Workstation	1	10.00
258	MAT unit	1	10.00

(iii)	Equipment: Out of Externally Funded Projects (EFP)
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Sr. No	Name Category of Equipment/Vehicle Item	Quantity (Nos.)	Approximate Cost (In lakh)
1	Laptop/Desktop computer	2	2.00
2	Laptop and Desktop	1	2.25
3	Workstation	1	4.00
4	Hydrogen Canister with accessories and mass flowmeter	1	17.00
5	Laptop	1	1.00
6	Oxidation stability bath with a pressure vessel	1	3.20
7	Hydraulic Drum Lifter	1	2.00
8	Gear Pump for oil transfer	1	0.20

9	Work Bench (SS)	1	0.15
10	Stirrer Motor	1	0.22
11	Bench Grinder & Polisher (Polisher-Grinder-Drill)	1	0.10
12	Hot Plate	1	0.70
13	Heating Mantle	1	0.10
14	Ultrasonic Bath	1	0.40
15	High pressure batch reactor	1	15.0
16	Analytical weighing scale	1	1.26
17	Pensky Martens Flash Point Apparatus	1	0.65
18	Manual Drum Lifter, Shifter and Tilter 360°	1	0.99
19	Monoblock type oil pump	1	0.29
20	Bench Grinder 3 in 1 wheel and chuck 0.25 hp	1	0.28
21	Executive Table with Pedestal Unit, Revolving Chair	8	0.62
22	Steel Shelving Cabinets	2	0.33
23	Hot Plate with Magnetic Stirrer	1	0.70
24	Heating Mantle 1000 ml	1	0.10
25	Refrigerator	1	0.25
26	Computer Monitor	1	0.25
27	HARD DRIVE	1	0.10
28	FABRICATION OF THE REACTOR ASSEMBLY/ AUTOCLAVE	1	1.35
29	Web Camera	1	0.20
30	Pine Needle Briquetting unit	2	20.00
31	Flue Gas analyzer	1	10.00
32	Power analyser	1	2.50
33	Air filling station	1	0.50
34	Weather station	1	0.50
35	Tachometer	1	0.50
36	High-end Computer Workstation	3	45.0
37	Laptop/Desktop Computer	6	6.0
38	Printers & Scanners	2	1.5
39	Visual display unit, online meeting accessories	2	3.0
40	Coulometric titrator	1	30.00
41	FC based Golf Cart	1	40.00
42	Hydrogen storage canister	1	5.00
43	DAQ System	1	1.00
44	Mass Flow Controller (MFC), Mass Flow Meter	1	5.00
45	Thermal bath	1	5.00
46	Vacuum Pump	1	2.00
47	Pressure transducers	1	1.00
48	Personal Computer with LED	1	1.50
49	Cryocan	1	0.80
50	Flash Point Abel (Manual)	1	2.50
51	Flash Point COC (Manual)	1	1.50
52	Flash Point PMCC (Manual)	1	1.50
53	Colour Saybolt (Manual)	1	1.50

54	High Vacuum Pump	1	6.00
55	Faculty Table	2	1.00
56	Grease Worker and Grease Penetrometer	1	4.80
57	Deimulsibility Apparatus	1	7.00
58	Rota evaporator	1	10.00
59	Microscope software update	1	7.50
60	Cleaveland Flash Point and Fire Point Apparatus	1	1.26
61	Vehicle air filling system, multimeter	1	0.50
62	Hydrogen gas cylinder	8	1.00
63	Conveyer	2	980000.00
64	Burner	1	500000.00

A (b)	*CONSUMABLE
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Sr. No.	Expected Procurement Value (In Lakhs)				
	Category	Out of CSIR Infra Grant	Out of CSIR Funded Projects	Out of Externally Funded Project (EFP)	Total (In Lakhs)
1	R&D Consumables for closed loop systems (items for spectroscopic, microscopic, and chromatographic instruments, (• PLCs, VFD, motor drivers, SCADA systems/licenses, Pilot plant instrumentation (PIDs, MFCs, PT/DPT, BPRs, rotameters, valves, control panels), Chillers, furnaces, ovens, centrifuges, ultrasonic baths, heating mantles, magnetic stirrers spares, pH meters, conductivity meters, balances, data loggers spares, Sensors, RTDs, thermocouples, pressure and flow devices, Power supplies, relays, contactors, switches, connectors, Solar energy monitoring systems, Industrial IoT platforms, ESP32, Raspberry Pi and embedded controllers, Smart energy meters, Miscellaneous accessories/components as and when required.), Spares for Liquid Nitrogen Plant – Oil Filter Air Filter, Guide Ring, Sealing Ring Displacer, Compressor oil, lubricants, filter elements, gasket kits, O-rings, cryogenic Oil, pressure gauges, Chiller Compressor, temperature sensors, control valves, pumps, hoses, Contactor, Belts, Vacuum Gauge, Rotavap Flask, MCU electronic boards5" LED	33	11.50	26.50	71.00

	dashboard display, sensors, Instruments spares and related items, Exhaust Fan Flappers etc.				
2	Chemicals (Solvents (hexane, ethanol, acetone, methanol, isopropyl alcohol, heptanes, benzene, DMSO, diethylether, ethylene glycol, etc.), Inorganic Salts, Acids (Sulfuric acid, nitric acid, acetic acid, etc) and Base (KOH, NaoH, etc), Chemical and material standards for calibration, Specialty chemicals and materials, Advanced materials, catalysts, enzymes, biomolecules, etc, Filter papers, syringe filter, membranes, etc., Deuterated solvents, HPLC-grade water DMDS, MS barrels, Low boiling hydrocarbons and solvents (1-butenel, butane, 1- pentene, pentene, etc.), Inorganic metal Salt, Common Reagents (Xylitol, Xylitol-fatty acid ester), Alpha alumina extrudates etc	35.10	125.38	33	203.48
3	Other Consumables (ex-Membranes, filers, magnetic beads, tough-tags, etc.) Silicon Oil, Epoxy Dynamometer/Controller servicing Emission Analyser Servicing Diesel for test samples, Fabrication components for test setup, Transportation charges Servicing of battery chargers, Servicing of relays. Emission analyser Calibration gas bottle (Qty:3) Pressure Valves Calibration of equipment Electrical spare parts, Teflon tape, items for spectroscopic, microscopic, and chromatographic instruments, Insecticide, Raw	69	24.49	18.80	112.29

	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, PID Controller, Ceramic beads, PFAD, Analytical grade media components, Molecular biology reagents (genomic DNA isolation, RNA isolation, Restriction enzymes, Telephone sets for complete institute and other telephone infrastructure components. • Calibration services for different master and secondary calibration instruments. • Wiring, terminals, cable glands, ferrules, screws, nuts and bolts • Fuses, resistors, capacitors, inductors, ICs, semiconductors. • Wireless sensor networks components • AI-based predictive maintenance components/instruments • Tubing, pneumatic fittings, O-rings, seals and miscellaneous maintenance spares. • Remote data acquisition systems components/devices • Environmental monitoring • Renewable energy instrumentation • Battery management systems • Prototype electronics and controller development.)) (Consumables for R&AC Section - Spare parts				
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	(consumables) for Air Conditioners - Refrigerant Gases (R-22, R-32, R-134a, R-410A, R407,R404),Compressors, Vacuum Pump Oil, Compressor Oil, Brazing Rods, Silver Brazing Flux, Copper Tubes & Fittings, PVC Drain Pipe, Electrical Wires & Lugs, Cable Ties, Insulation Tape, Refrigeration Insulation, Capacitors, Contactors, Relays, Thermostats, Temperature Sensors, Pressure Switches, Coil Cleaner, Condenser Cleaner, Air Filters, Drier Filters, Nuts & Bolts, Rubber Pads, Fasteners etc.) Consumables For Fabrication Workshop - Welding Electrodes, MIG/TIG Wire, Cutting Nozzles, Grinding Wheels, Cutting wheels, Flap Discs, Emery Paper, Drill Bits, Welding Glasses, MS Rod, MS MS/SS Plates, MS Flats, Angles, Pipes, Nuts, Bolts, Fasteners, Polishing wheel, MS Squire pipes, Drill chuck, morse taper, Link Chain, etc as per requirement. Consumables for Machine Shop - Cutting tools/inserts, HSS tool bits, coolant, cutting oil, lubricants, grease, emery paper, polishing compounds, spindle oil, belts, fasteners, MS SS Materials. chucks, indexing head, tool holders, Consumables for Glass Blowing Section - Glass tubing/rods, sealing wax, graphite lubricant, LPG, polishing compounds, heat-resistant gloves, Glass blowing torch, burners, glass cutter, blow hoses, tweezers, graphite paddles, jigs, regulators, pressure gauges, safety shields., Thermo Scientific "Eutech" General-purpose plastic body, single junction pH combination				
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	electrode, Flex 12 Point Analog Input Module, Hydrothermal Autoclave Reactor, Paint, Name Plate, Whole Genome Sequencing Service, Ceria Zirconia Alumina monolith preparation, Cu Based Methanol synthesis catalyst, PLSI Double Stage, Water Distillation Unit, Ring spanner, Jaw wrench, pipe wrench, cold chisel, plier, BNC sensor pH non-aqueous, Easy Plus Burette, Karl Fischer Reagent etc, Biomass, Spares for reactor, Autoclave valves and its tube fittings for reactors				
4	Glass wares (beakers, round-bottom flasks, Dewar flasks, filtration units, joints and cones, condensers, vials, samples bottles, etc)	8.3	38.00	0.80	47.10
5	Labware (gloves, crucibles, quartz tubes and boats, alumina tubes and boats, etc)	0	17.50		17.50
6	Plastic wares (Reagent tubes, micropipette-tips, centrifuge tubes, reagent bottles, utility tray, petri plate etc)	5	11		16.00
7	Safetyware (gloves, lab-coats, goggles, face-shields, masks, mats, towels, Electrical Insulating Mat etc)	1	5	1	7.00
	Housekeeping (Oils, greases, lubricants, detergents, glassware cleaners, Handwash, Acid, Broom, Wiper, Tyre, Cordless phone, Anti skid mat etc)	1.24	5		6.24
8	Toner Cartridges	2	4	0.30	6.30
9	Batteries, Battery Bank etc.	6	3.5		9.50
10	Gases (air, oxygen, nitrogen, argon, helium, hydrogen, gaseous mixtures, etc)		26	2.58	28.58
11	Maintenance/AMC/repairing of existing equipment (GCMS, BPR, AMC of Liquid Nitrogen Plant J0681, AMC of 38HP VRF/TFA of Auditorium, AMC	10	25.53	12	47.53

	of 172 HP VRF of Training centre, Gel permeation chromatography (GPC), Gaskets Viton Fabrication, Upgradation of existing units, analyser spares etc)				
12	Stationery items (Photocopy Paper)	1.04		1.5	2.54
13	IT (LAN cable, Networking accessories, cables, etc)/ software-related Items (ERDAS Imagine, Omics Box, Arc GIS, Superflow designer software, Material Studios, LCA databases for Sphera + SimaPro, Origin Pro software Perpetual academic license, Microsoft Office Perpetual (LTSC), SSD/ HDD/ RAM, Claude, ChatGPT, Canva, AWS Cloud, Supabase, Solidworks Labview, IT Accessories (Webcam, Mouse, Wifi Dongle UPS service, and its consumables etc.) etc	168	6.8	6.25	182.05
14	Furniture (Granite tables, two island tables, Chairs, Drawers, door stopper double ended, tower bolt, plywood (6mm, 12mm, 19mm), door handle 150mm, door handle 100mm, steel butt hinge 75mm, steel butt hinge 50mm, wooden beading patti, hydraulically regulated door closer etc.)	3.30		10	13.30
15	Electric Items (Name the items required during year)		FTT EV Kit Rs.30,000		
16	Others (Spare parts of BET unit, Spare parts of CHNS unit, Spare part of distillation unit, Spare part of Hydrogen generator, Spare part of rota-evaporator, Galvanized Iron Rainwater Gutter, Display Board, PC Board Fuse, Membrane Switch, Motor, Heating element etc)		45.80	1.60	47.40

* 180 Lakh under C&C head of Institute-wide MLP

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.