

CSIR-INDIAN INSTITUTE OF PETROLEUM, DEHRADUN
PROCUREMENT PLAN

Last updated on 20 July 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 (Rs. 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

(ii)	Equipment: Out of CSIR Funded Projects
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Sr. No	Name Category of Equipment/Vehicle Item	Quantity (Nos.)	Approximate Cost (Rs. in lakh)
1	Hydrogen Reactor - hydrogen charging and testing reactor	1	20.00
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	ICE 3-wheeler auto	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	1.50
68	Diaphragm Vacuum Pump (AD2C)	1	1.00
69	Self propelled weeder	1	0.80
70	High-pressure drilling fluid setup and HPHT Filter Press	1	20.00
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 requiremenmt index measurement facility	1	100.00
88	High-temprature 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 temprature 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	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

(iii)	Equipment: Out of Externally Funded Projects (EFP)
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Sr. No	Name Category of Equipment/Vehicle Item	Quantity (Nos.)	Approximate Cost (Rs. In lakh)
1	Laptop/Desktop computer	3	3.00
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
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A (b)	*CONSUMABLE
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Sr. No.	Expected Procurement Value (Rs. In Lakhs)				
	Category	Out of CSIR Infra Grant	Out of CSIR Funded Projects	Out of Externally Funded Project (EFP)	Total (Rs. In Lakhs)
1	R&D Consumables for closed loop systems (items for spectroscopic, microscopic, and chromatographic instruments)	5	6	5	16
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	35	114	5	154
3	Other Consumables (ex-Membranes, filers, magnetic beads, tough-tags, etc.) Epoxy Dynamometer/Controller servicing Emission Analyser Servicing Diesel for test samples, Fabrication components for test setup, Transportation charges	43	16	5	64

	Servicing of battery chargers, Servicing of relays. Emission analyser Calibration gas bottle (Qty:3) Pressure Valves Calibration of equipment Electrical spare parts, items for spectroscopic, microscopic, and chromatographic instruments, 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.				
4	Glass wares (beakers, round- bottom flasks, filtration units, joints and cones, condensers, vials, samples bottles, etc)	8.3	33		41.30
5	Labware (gloves, crucibles, quartz tubes and boats, alumina tubes and boats, etc)	0	15		17.00
6	Plastic wares (Reagent tubes, micropipette-tips, centrifuge tubes, reagent bottles, utility tray, etc)	5	11		16.00
7	Safetyware (gloves, lab- coats, goggles, face-shields, masks, etc)	0	5		5.00
	Housekeeping (Oils, greases, lubricants, detergents, glassware cleaners, Handwash, Acid, Broom, Wiper, Tyre, Cordless phone, etc)	1	5		6.00
8	Toner Cartridges	2	4		6.00
9	Batteries, etc.	2	3.5		5.50
10	Gases (air, oxygen, nitrogen, argon, helium, hydrogen, gaseous mixtures, etc)		25		25.00
11	Maintenance/AMC/repairing of existing equipment		12	2	14.00
12	Stationery items (Photocopy Paper)	1.04		1.5	2.54

13	IT / software-related Items (LAN cable, Networking accessories, cables etc)	16			16.00
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		10	13.00
15	Electric Items (Name the items required during year)		FTT EV Kit Rs.30,000/-		
16	Others (if, and as and when required)		5		5

* Rs. 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.