

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

Annual Procurement Plan for Financial Year 2022-2023

Sl. No	Item Description	Unit	Quantity
1	Peta Byte RAID storage	No	2
2	Computer servers & HPC	No	1
3	Communication /network hardware	Set	1
4	G-APD camera	No	1
5	Position sensitive detectors	No	2
6	Electronics and vacuum pump accessories	Set	2
7	Power supplies and pulse generators	Set	1
8	Upgrade of COLTRIMS	Set	1
9	X-ray & electron detectors, crystals, gratings etc.	Set	1
10	Large volume LaBr3:CE detectors	No	2
11	Upgrade of lasers for ultra high contrast	Set	1
12	Additional pump lasers to upgrade 100 TW laser to 200 TW laser	Set	1
13	Detectors, imaging systems for experiments with ultra-high contrast pulses	Set	3
14	BGO	No	2
15	Low temperature measurement accessories	Set	1
16	Low beta Nb cavity accessories, high purity Nb, Cu etc.	Set	1
17	Beam transport system components (magnets, power supplies, beam diagnostic devices, control devices, etc.)	Set	2
18	Vacuum system components	Set	2
19	Cryogenic system components	Set	2
20	Position sensitive scintillator detectors	No	2
21	Computers and accessories for DNAP	Nos	1

Sl. No	Item Description	Unit	Quantity
22	Science grade HIRG detector array, H2RG mux, astronomy filters, array controller, collectors – hermetic, hermetic connector fanout, connectors – non hermetic, cryogenic ribbon, detector cryo flex cable, cold feedthrough connectors, warm array cables, detector cryo connection/filter board, extra video board for software test station, PCI express boards, test station	Set	1
23	Cryogenic environmental vacuum chamber, cryo-cooler stations, closed cycle cooler lines, closed cycle cooler head, compressor	Set	1
24	Confocal Microscope	Set	2
25	Central Data Storage Capacity	Set	1
26	FPLC System	Set	1
27	Lattice Light Sheet Microscope/ AFM/ Femto-Second Laser/ Fluoresce microscope	Set	1
28	Up-gradation and replacement of old instruments	Set	1
29	Multimodal Animal imaging	Set	1
30	NGS Machine	Set	1
31	Peta Watt Laser	No	1
32	TIRM/STORM, STED, PALM	No	1
33	Optical Tweezers setups	No	1
34	Computers and Peripherals, Networking	No	10
35	Workshop Machinery	No	1
36	Fumehoods	No	7
37	Spin coating unit	No	1
38	Dipping robots	No	1
39	UV-ozone cleaner, Si/Au-coated Si/glass/ITO-coated glass wafers	No	1
40	Peristaltic pump	No	3
41	Fluorescence and phosphorescence (steady state and time resolved)	No	1
42	QCM component equipped with flow cell units, sensors and software	No	2
43	Off site Storage for DR	Lot	1

Sl. No	Item Description	Unit	Quantity
44	Desktops	No	25
45	Laptops	No	25
46	Printers	No	6
47	Computer Software and Data	Set	1
48	Molecular biology reagents	Set	1
49	Tissue culture consumables	Set	1
50	Protein Biochemistry reagents	Set	1
51	Reagents for Cell Biology	Set	1
52	Laboratory chemicals	Set	1
53	Consumables/re-agents	Set	1
54	Animal feed and culture material for insect work	Set	1
55	Plastic and glass ware for laboratory work	Set	1
56	AMC of High Value Equipment/ Facility Equipment	Set	1
57	Laboratory Safety equipment	Set	1
58	CO ₂ , N ₂ and other Gases, Liquid Nitrogen Dry Ice & Alcohol, Liquid helium	Set	1
59	Equipment Spares	Set	1
60	Facility Consumables	Set	1
61	Scientific Information Resources and Data link Charges	Set	1
62	Open access publication costs	Set	1
63	Fine chemicals	Set	1
64	Biochemicals	Set	1
65	Labeled chemicals	Set	1
66	Chemicals for synthesis of materials and other compounds	Set	1
67	Chemicals & Biochemicals for molecular biology experiments	Set	1
68	Enzymes, peptides and nucleotides	Set	1
69	Vacuum equipment & chambers, Power supplies, Meters, Spares and accessories for existing equipments, Sputtering targets, High purity chemicals and gases	Set	1
70	E-Books, Journals and software	Set	1

Sl. No	Item Description	Unit	Quantity
71	Vacuum accessories, compressor oils, adsorbing materials, filters, computer peripherals	Set	1
72	AMC charges for Power Plant, Chilling Plant, Computing Systems, Software renewal, etc.	Set	1
73	Electrical, STP and HVAC system Upgrade	Lot	1
74	Computer and video conferencing and accessories	Set	1
75	Centralised computing facility (HPC)	No.	1
76	Milli-Q/Milli-RO systems, Deep freezers, speed-vac systems	No.	1
77	Plate readers/spectro photo meters, ultra/centrifuges, Gel doc system, Typhoon, cryostat, microtome, X-ray developer etc.	No.	1
78	Lasers, computers, sequencing systems and accessories for Biology	No.	2
79	Microscopes and imaging systems for biology spares	No.	1
80	Transmission Electron Microscope (TEM)	No.	1
81	Ion mobility mass spectrometer	No.	1
82	Spares/upkeep of biochemistry and synthetic chemistry facility	No.	2
83	AFM spares (lasers, cantilevers, electronics, maintenance)	No.	1
84	Scanning electrochemical microscope	No.	1
85	Lasers, computers and accessories for chemistry	No.	2
86	Magnetometers: maintenance, spares and accessories	No.	2
87	X-ray diffractometers: maintenance, spares and accessories	No.	2
88	Transmission Electron Microscope: maintenance, spares and accessories	No.	2
89	In-situ four probe micro-manipulator assembly for SEM	No.	1
90	Nanofabrication facility: maintenance, spares, accessories	No.	2
91	Upgrade and maintenance of electron detection system in ARPES systems	No.	2

Sl. No	Item Description	Unit	Quantity
92	Maintenance of SRPES and HREELs spectrometers	No.	2
93	Maintenance and upgrade of crystal growth facility, furnaces, X-ray diffractometers, vacuum pumps, etc.	No.	2
94	Augmentation of dilution refrigerator insert for the PPMS	No.	1
95	Fabrication of pulsed laser deposition chamber with high pressure RHEED	No.	1
96	He3 dilution insert for existing cryomagnet	No.	1
97	Low mechanical noise closed cycle cryostat	No.	1
98	Dry dilution fridge with magnetic field up to 1.2T	No.	1
99	Operation and maintenance of semiconductor growth system	No.	2
100	Upgrade of new spectroscopic setup	No.	1
101	Low temperature chamber for NSOM	No.	1
102	generator Multi-channel arbitrary waveform	No.	1
103	Computers and accessories	Set	2
104	Maintenance and upgrade of low temperature facility and accessories	No.	2
105	Communication /network hardware	Set	2
106	Deployment of seamless wireless network	No.	1
107	Computer servers	No.	1
108	Audio & Video Equipment for lecture theatres	No.	2
109	Equipment for refurbishment of Laboratories and Offices in over 5 decades old, lab and office blocks	No.	2
110	Replacement of old AHUs and FCUs, and new piping at various locations	No.	1
111	Workshop Machinery and Equipment	No.	1
112	Replacement of old transformers and switchgear in sub-station, including associated cabling, etc.	No.	2
113	Fire Fighting Equipment,	No.	1

Sl. No	Item Description	Unit	Quantity
114	Surveillance and security Equipment	No.	1
115	Miscellaneous hardware	No.	1
116	HAGAR O&M	Lot	2
117	Spares and supplies for high energy physics	Lot	2
118	Maintenance and spares for lasers, gases and chemicals	Lot	2
119	Maintenance and upgrade of ECR facility	Lot	1
120	Electronic modules, spares, materials, gases, etc.	Set	2
121	Spares and consumables for optics and lasers	Set	2
122	Electronics modules, beam line components, target materials	Set	1
123	Optics, electronics and vacuum spares	Set	2
124	Detector spares, target, shipment	Set	2
125	Tin enrichment feasibility study	Set	2
126	Special shielding materials, He3 gas, high purity tin, sensors, etc.	Set	2
127	Electronics, detectors, target materials etc.	Set	2
128	Helium gas	Cubic Meter	10000
129	Liquid nitrogen	Liter	200000
130	Spares for Pelletron-LINAC	Set	2
131	Maintenance of computer cluster	Set	1
132	Windows with coatings, discharge lamps, continuum lamps, ethernet switch with fiber input, motor power supply, computers, software, mechanical & thermal components, optical elements	Set	2
133	Optical, mechanical and electronic components and spares	Set	2
134	Miscellaneous spares for balloon facility	Set	2
135	Maintenance of high performance computing facility	Set	2

Sl. No	Item Description	Unit	Quantity
136	Upkeep of equipment and auxiliary services	Set	1
137	Reagents and consumables for Biology	Set	2
138	Chemicals, enzymes and small equipments for Chemistry	Set	2
139	Miscellaneous items for spectroscopies	Set	2
140	High purity metals	Set	2
141	Spares for PPMS, NMR set-up	Set	2
142	Furnaces and accessories	Set	2
143	High purity oxides, chemicals for single crystal growth facility, crucibles, squid sensors and control units, etc.	Set	2
144	Targets, substrates, photoresist and high purity chemicals, spares and miscellaneous components	Set	2
145	Miscellaneous lab equipment, spares, accessories, chemicals, substrates	Set	2
146	Laser and optics spares and accessories	Set	2
147	Signal generator and other electronics accessories	Set	2
148	RF generators, microwave instruments and accessories	Set	2
149	Civil Works (Repairs, maintenance & upgrades)	Set	2
150	Civil Works (Refurbishment and upkeep of Hostels and Guest House)	Set	1
151	Electrical Equipment's, substation, DG set	Set	1
152	Generic Antenna Control Board	Set	1
153	Compact Station servo interlocks	Set	1
154	Design and fabrication of new GMRT dish	Set	1
155	Beam former, feed, signal transport etc.	Set	1
156	Antenna refurbishment and repair Lowering and erection work of Antenna and along with Winch machine, Reflector Surface Refurbishing Work of GMRT Antenna	Set	1
157	High Lift platform maintenance service	Job	1

158	CNC Machine :- Electrical Winch Machine of 05 Metric Ton Capacity with Wire Rope	No	1
159	Upgrade of electronics and digitization Firefighting system and smoke and fire alarm system work	Set	1
160	Upgrade of telemetry system	Set	1
161	Extended GMRT development	Set	1
162	FPGA/GPU boards, compute servers, feed design etc. Rack Servers, Rack PDU	Set	1
163	Computer and video conferencing and Accessories for NCRA	Set	1
164	Centralised computing facility for Physics and Astronomy (HPC) i.e., Computers, Laptops, Computers systems & accessories (Consist Import), Maintenance of the NAPS Software	Set	1
165	Spares and Maintenance for GMRT	Set	1
166	Internet link for NCRA and GMRT	Set	1
167	SIRC books & journals (NCRA)	Set	1
168	Upkeep of equipment and Auxiliary Services	Set	1
169	Maintenance of Pelletron facility, Infrared instrumentations and GMRT Antennas	Set	1
170	Consultancy for GMRT	Job	1
171	Sub Rack Systems	Set	1
172	Digital Hardware	Set	1
173	Infrastructure around GMRT antennas and OFC work	Job	1
174	Road work at all campuses i.e., GMRT, NCRA and RAC Ooty.	Job	1
175	Civil Works: 1. Hostel at Pune 2. Extension of GMRT Guest House at Khodad 3. Creation of Recreation facilities at NCRA 4. Parking, compound wall, playground, HT yard and other civil works 5. Hostel refurbishment 6. Antenna concrete tower water proofing	Job	1

176	Renovation work: 1. Office building at GMRT 2. Residence quarters at Narayangaon 3. Renovation works at Ooty Radio Telescope	Job	1
177	Workshop at Narayangaon	Job	1
178	Upgrade of Electrical systems at NCRA, GMRT and RAC	Job	1
179	Reactive Ion Etching (RIE) System with Loadlock	No.	1