

Procurement Plan 2021-22 (M&E) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
1	Fiber drawing and welding system	170
2	Large aperture UHV gate valves	85
3	Differential GPS based measuring system	50
4	Diode pump gain modules for pre-amplifiers (Yb doped fiber pre-amplifiers)	200
5	Softwares	130
6	Miscellaneous equipments	127
7	High precision PCB prototyping system	120
8	Electro-optic systems	91
9	Refractometer for optical glass	88
10	Clean room equipments and accessories	87
11	Electronics equipments	84
12	Imaging and diagnostics equipment	80
13	Semi-automatic optics lapping machines	80
14	Vacuum equipment	67
15	10 kW CW fibre laser and associated items	400
16	Workstation for multimode fiber optic pump combiner	386
17	UV-Vis-Near infrared absorption spectrophotometer, imaging spectrographs, single photon counting APO, spectrometers and detectors, Line scan and cooled CCD cameras, ICCD cameras	150
18	Electronically tunable filters for Raman imaging	130
19	X-ray CCD camera	110
20	Raman spectrometers with cooled CCD Detectors	80
21	Chip-based fiber-optic Raman spectrometers for portable Raman systems	75
22	Various test and measurement instruments like DSO, Spectrum analyser etc.	70
23	Time-resolved fluorescence spectroscopy system, Microplate readers, Spectrofluorometer with accessories	60
24	Pulse shaper with fs pulse measurement device	60

Procurement Plan 2021-22 (M&E) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
25	Elastic property measurement system	60
26	Machine vision cameras	50
27	Lens assemblies and illumination for machine vision systems	50
28	TMP pump for the plasma mirror / plasma chambers	50
29	MCP and gamma ray detectors	50
30	UV-Vis and NIR Liquid crystal tunable filters for hyper-spectral optical imaging	50
31	Large area 2D (CCD) detector for Engg Appl Beamline	180
32	Magneto-Optic cryostat	160
33	Optical parametric amplifier	95
34	Confocal microscope	90
35	Components for high temperature in-situ straining and cycling device	75
36	UPS systems and accessories for FEL user facility	75
37	Excimer laser for PLD setup	60
38	Chemisorption system	50
39	Pulsed I-V measurement system	50
40	Fast CCD camera	50
41	Liquid nitrogen plant	400
42	Helium compressor for helium liquefier	300
43	Phase array detector and accessories	100
44	High capacity backup solution and high throughput Ethernet switches	100
45	Servers and software for information management and servers for high availability	95
46	Test and measuring instruments (Multichannel data logger, oscilloscopes, current probes and amplifiers, digital multi-meters, spectrum analyzer, VNA etc.), Signal generators (Arbitrary waveform generator/ RF generator etc.)	190
47	Chiller units and associated equipment for LCW plant, controlling devices, heat exchangers, pumping system etc.	150
48	Mechanical test and measuring instruments, presses, furnaces and its accessories, welding machine etc.	100

Procurement Plan 2021-22 (M&E) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
49	Laser tracker or equivalent measurement system and upgradation of the alignment software	85
50	Residual gas analyzers	50
51	Vacuum pumps and power supplies/controllers	50
52	Helium gas recovery compressor	150

Total (Rs in Lakhs) (FY 2021-22)

5945

Procurement Plan 2021-22 (S&M) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
1	Pump diodes 808 nm and 976 nm	120
2	Fused silica blanks and preforms	80
3	Lasers and electro-optic materials	240
4	KDP and Deuterated KDP	180
5	Ultra high purity fused silica blanks	153
6	Miscellaneous items	136
7	High voltage and electrical components	122
8	Opto-electronic components	120
9	Workshop consumables	115
10	Opto-mechanical components	170
11	High power spatial light modulators (SLM)	100
12	Chemicals and gases	100
13	Disc amplifier mechanical assembly and involute reflectors	95
14	Optical Streak camera system	91
15	Optical glasses	75
16	Airbearing stages and spindles	75
17	Large aperture gratings	60
18	Flash lamps	60
19	High homogeneity optical glass	58
20	Coating materials and spares for optics coating	55
21	Low voltage components	50
22	Workshop consumables	50

Procurement Plan 2021-22 (S&M) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
23	Optical streak tubes (S20) and image intensifier tube	50
24	Spares for laser systems	250
25	Optical fibers and fiber optic probes, shutters, guides and related components	80
26	Vacuum chambers and associated items	80
27	Laser diode assemblies	80
28	Dichroic filters, notch filters, ND filters, lenses, filters, clean-up filters, polarizers etc.	70
29	Optics (Mirrors, lenses, polarizers, prism , etc.)	60
30	Fiber coupled laser diodes	60
31	Electrical hardware and components	50
32	Doped fiber and fiber components	50
33	Nd:YAG laser rods and laser crystals	50
34	Perimeter level video surveillance system and electronic security components	100
35	Liquid nitrogen dewar for future large volume LN ₂ storage requirement	100
36	Helium gas	80
37	Power converters, AC-DC switch mode power converter modules, sub-racks, cabinets, power semiconductor devices, copper bus-bars, wires, SC wires, cables, heat sinks, fittings, hose pipes, magnetic components, magnetic cores, electronic components, PCBs, circuit-breakers, electrical protecting devices, electrical hardware, sensors, resistors, capacitors and other electrical components, computing machines, spares, power conditioning devices, batteries.	250
38	Data acquisition and signal processing boards, low level RF controller boards, Various controllers & boards including VME, PXI, backplanes, chassis, programmable controllers and devices etc.	200
39	Miscellaneous items and continued operation cost of Indus Power Conditioning System, LCW plant, CCTV surveillance system ,air washer system, air compressors and air- dryers, precision survey instruments, magnetic measurement bench, compressors, machines for ferrite development, presses etc.	150
40	Mechanical fabrication of various items, cryostat, fabrication of diagnostic devices, fabrication of magnets, core assembly parts, fasteners etc.	120

Procurement Plan 2021-22 (S&M) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
41	Processing electronics for Beam position monitor and processing electronics for multi-bunch feedback system	100
42	Signal and RF cables, connectors, RF amplifiers, RF transistors & components, rigid coaxial lines, RF circuit pellets, waveguide components etc	100
43	Simulation software and their upgrades, Software packages and licenses including SCADA, Presentation and analysis tools, Database, anti-virus, Real Time Operating Systems (RTOS), OS, software qualification and testing tools, office utility software, network management software and network access control software tools, scientific computing packages, back-up tools etc.	90
44	Vacuum components, bellows, feedthroughs and other vacuum hardware, fabrication of vacuum chamber , gauges, RF shielded bellows chamber etc.	80
45	Raw materials, grinding media , balls & chemicals for ferrite development, furnace rods, wool, ceramic trays, Copper & Al conductors, bars, plates, Helium, Hydrogen, Argon etc.	60
46	Spares for LCW plant and precision chillers, valves, fittings, electrical hardware, refrigerating hardware, chemical plant spares, sensors, controllers, piping hardware and fabrication jobs etc.	60
47	Cryocooler, Klystron with accessories, Thyatron switches, etc.	50
48	Electrical power cables, fittings, panels, components for electrical system up-gradation, solar electrification components, electrical panel upgradation, power supplies, switches etc.	50
49	Materials, components and fabrication for RF systems, magnets, vacuum, power supplies, RF cavity, RF power sources, tetrodes, microwave components, electron sources including cathodes, ceramics, beam injection and extraction measurement systems, diagnostics, measurement, test benches and experimental set-ups for recirculating accelerator improvements etc.	50
50	Software for EM design, beam dynamics, FEA, CAD, Multiphysics etc.	55
51	RF microwave (MW) components for test stand: klystrons, MW/waveguide (WG) components, WG pressure handling and SF6 systems, window, loads, circulators, couplers, modulator and HV components, thyratrons, RF tube, tetrode, RF transistors, RF cavities, semiconductor, solid state switches, RF cable, connectors, development of MW system components, guns, power supplies, , tuning and measuring instruments and set-ups, test stands, transformer cores, support and mechanical hardware items, continued operation of existing systems, spares etc.	70

Total (Rs in Lakhs) (FY 2021-22)

4950

Procurement Plan 2022-23 (M&E) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
1	Clean room compatible diffusion bonding furnace (1600 °C).	450
2	High precision wire bonder.	260
3	PECVD for mixed oxide coating (including number 18).	260
4	Double side lap optics polishing machines (500 mm dia), direct drive torque motors with drives and CNC controllers.	250
5	Upgradation of Optical coating facility (Clubbed with 8).	180
6	Small size double side lap optics polishing machine (100 mm dia) (Automated Superpolishing Machine).	150
7	Miscellaneous equipments.	96
8	Diode pump gain modules for pre-amplifiers.	93
9	Fiber fusion splicer.	70
10	Nitrogen generator.	65
11	Electronics equipments.	50
12	Optical spectrum analyzer.	30
13	CO2 test loop components.	70
14	Transmission electron microscopy system.	1000
15	Nitride epitaxial film growth system.	675
16	Czocharlski crystal puller.	380
17	X-ray emission spectrometer subsystems for soft x-ray beamline.	300
18	SU-8 (photoresist) removal system.	80
19	Oxide layer deposition system.	310
20	Reflection high energy electron diffraction (RHEED) for PLD setup.	90
21	Optical floating zone.	275
22	Upgradation of physical property measurement system with a CCR.	210
23	Mask aligner.	175
24	Adiabatic calorimeter.	50

Procurement Plan 2022-23 (M&E) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
25	Closed cycle He Micro cryostat (low vibration).	100
26	Micro spectrophotometer.	200
27	Ultrasonic scanner.	50
28	Test and measuring instruments (Multichannel data logger, oscilloscopes, current probes and amplifiers, digital multi-meters, spectrum analyzer, VNA etc.), Signal generators (Arbitrary waveform generator/ RF generator etc.)	150
29	D G Set (Class III supply) along with AMF panel and smoke exhaust system for Indus Complex.	80
30	Chiller units and associated equipment for LCW plant, controlling devices, heat exchangers, pumping system etc.	60
31	325 MHz Klystron / high power amplifier and accessories.	500
32	High power circulators.	130
33	High pressure pump.	75
34	Turbo molecular pump, cryo-pump, vacuum pump, scroll pump, MSLD etc.	57
35	Neutron spectrometry system.	52
36	Low temperature (2 K – 400 K) electrical, magnetic property measurement cryostat system with integrated microscopy.	50

Total (Rs in Lakhs) (FY 2022-23)**7073**

Procurement Plan 2022-23 (S&M) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
1	Opto-mechanical components	120
2	Optical components	80
3	Lasers and electro-optic materials	50
4	Disc amplifier mechanical assembly and involute reflectors	50
5	Chemicals, metals, gases, substrates and consumables	180
6	Spares for SQUID magnetometer and PPMS	60
7	Processing electronics for Beam position monitor and processing electronics for multi-bunch feedback system	230
8	Miscellaneous items and continued operation cost of Indus power conditioning system, LCW plant, CCTV surveillance system ,air washer system, air compressors and air-dryers, precision survey instruments, magnetic measurement bench, compressors, machines for ferrite development, presses etc.	190
9	Cryocooler, Klystron with accessories, IOT devices, Thyatron switches etc.	180
10	Data acquisition and signal processing boards, low level RF controller boards, Various controllers & boards including VME, PXI, backplanes, chassis, programmable controllers and devices etc.	180
11	Power converters, AC-DC switch mode power converter modules, sub-racks, cabinets, power semiconductor devices, copper bus-bars, wires, SC wires, cables, heat sinks, fittings, hose pipes, magnetic components, magnetic cores, electronic components, PCBs, circuit-breakers, electrical protecting devices, electrical hardware, sensors, resistors, capacitors and other electrical components, computing machines, spares, power conditioning devices, batteries	140
12	Mechanical fabrication of various items, cryostat, fabrication of diagnostic devices, fabrication of magnets, core assembly parts, fasteners etc.	140
13	Vacuum components, bellows, feedthroughs and other vacuum hardware, fabrication of vacuum chamber , gauges, RF shielded bellows chamber etc.	90
14	Signal and RF cables, connectors, RF amplifiers, RF transistors & components, rigid coaxial lines, RF circuit pellets, waveguide components etc	70
15	Raw materials, grinding media , balls & chemicals for ferrite development, furnace rods, wool, ceramic trays, Copper & Al conductors, bars, plates, Helium, Hydrogen, Argon etc.	60
16	Electrical power cables, fittings, panels, components for electrical system up-gradation, solar electrification components, electrical panel upgradation, power supplies, switches etc.	60
17	Upgradation of air washer unit	50
18	Helium gas jumbo storage cylinders	200

Procurement Plan 2022-23 (S&M) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
19	Software for EM design, beam dynamics, FEA, CAD, Multiphysics etc.	75
20	RF microwave (MW) components for test stand: klystrons, MW/waveguide (WG) components, WG pressure handling and SF6 systems, window, loads, circulators, couplers, modulator and HV components, thyratrons, RF tube, tetrode, RF transistors, RF cavities, semiconductor, solid state switches, RF cable, connectors, development of MW system components, guns, power supplies, , tuning and measuring instruments and set-ups, test stands, transformer cores, support and mechanical hardware items, continued operation of existing systems, spares etc.	160
21	Klystron development: Cathodes, windows, electromagnets, focusing coils, pancakes, LLRF, guns, manufacturing and assembly set-ups, diagnostics, tuning and measuring instruments and set-ups, test stands, HV systems, vacuum pumps, gauges, valves etc.	60

Total (Rs in Lakhs) (FY 2022-23)

2425

Procurement Plan 2023-24 (M&E) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
1	325 MHz Klystron / high power amplifier and accessories.	50

Total (Rs in Lakhs) (FY 2023-24)

50

Procurement Plan 2023-24 (S&M) (List of Items > 50 lakhs)

Sr No	Item Description	Cost (Rs in Lakhs)
1	RF microwave (MW) components for test stand: klystrons, MW/waveguide (WG) components, WG pressure handling and SF6 systems, window, loads, circulators, couplers, modulator and HV components, thyratrons, RF tube, tetrode, RF transistors, RF cavities, semiconductor, solid state switches, RF cable, connectors, development of MW system components, guns, power supplies, , tuning and measuring instruments and set-ups, test stands, transformer cores, support and mechanical hardware items, continued operation of existing systems, spares etc.	100

Total (Rs in Lakhs) (FY 2023-24)

100