

CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE, PILANI

List of Consumables to be procured in next 5 years

Sr. No.	Name
1.	LED packages
2.	RF plumbing components X-band waveguide (straight, bend, waveguide to coaxial adapters, attenuators)
3.	PCB for LED packaging (star, circular, rectangular, square)
4.	Lenses for LED packaging
5.	Heat sinks
6.	Metal PCBs
7.	Yellow phosphors
8.	Silicone epoxies
9.	Adhesive thermal tapes
10.	Thermal epoxies and paste
11.	K-10 tungsten rods
12.	Appendage pumps
13.	Accessories and spares for ALV 100 Laser welding system (camera, gauge etc)
14.	RF window for Klystron
15.	WR284 waveguide RF load
16.	Brazing Alloys (Cu-Ag, Au-Ag, Au-Cu etc)
17.	Electroplating solutions (Au, Cu, Ni, Ag etc.)
18.	System spare parts (pumps, MFCs, gas lines, connectors, lamps, boat, power supply etc)
19.	LED drivers
20.	Metal sheets/rods (Cu, Al, SS, brass etc.)
21.	Chemicals (acetone, methanol, IPA, KOH, HCL, H2SO4m HNO3, TMAH, HF, BHF, H2O2
22.	Wafers (Si, GaAS, SiC, InP, GaN, sapphires, diamond, fused silica, quartz)
23.	Epitaxial wafers
24.	LiTaO3 wafers
25.	Photoresists (positive, negative, LOR etc.)
26.	Developer
27.	PG remover,
28.	Au pellets
29.	Silver pellets
30.	Ni, Ti, ITO, Pt, Ti, Al, Pd pellets
31.	Sputtering targets (Ti, Au, Ni, Cr, ZnO etc,)
32.	Gases (Hydrogen, Ammonia, N ₂ , Ar, O ₂ , BCl ₃ , Cl ₂ , H ₂ , Methane, Silane, diborane, N ₂ O, CF ₆ etc.
33.	Glass wares
34.	Filter papers
35.	Cotton swabs
36.	Glass plates
37.	Tissue papers

38.	Gloves
39.	MO sources (TMGa, TMIn, TMAI, BN etc.)
40.	Electrical wires
41.	sacrificial/mixer materials,
42.	Potting compounds
43.	Alumina substrates
44.	Thick film paste
45.	Alloy tubes,
46.	Metal tubes
47.	Optical sources (broad band NIR sources),
48.	InGaAs image array,
49.	Mirrors and lenses
50.	Diffraction gratings,
51.	Calibration standards
52.	Filters
53.	Electronic components, enclosures, mechanical components
54.	IR detectors, calibration standards
55.	Mechanical motors
56.	Embedded processors
57.	Slits
58.	Boards
59.	PCB
60.	Boxes,
61.	Desiccators,
62.	Pipe fitting,
63.	power supply,
64.	Ion source,
65.	Feedthrough,
66.	ICs,
67.	Sensors
68.	RF connectors
69.	Vacuum grade material like OFHC copper, thoriated tungsten, Tungsten-Rhenium, Molybdenum, SS, Kovar, soft iron, nickel, brass, Enamelled copper wire,
70.	Aluminium sheets/rods and chemicals.
71.	Power supply components, and waveguide components
72.	Metallized ceramics
73.	vacuum bellows,
74.	Cathode
75.	RF windows
76.	RF power sensors/components
77.	Vacuum accessories
78.	UHV grade materials,
79.	Space grade cathodes,
80.	Dielectrics
81.	RF passive components
82.	Space grade potting materials

83.	Cables
84.	Magnets
85.	High voltage ceramic,
86.	Lossy ceramic
87.	SS, OFHC, copper, Teflon, Perspex, wires, ceramics, etc.
88.	Components (Capacitors, Resistors, attenuators, electrical feed through, wires and cables, voltage probes, ICs, MOSFET/IGBT, development Boards, High frequency connectors, high frequency transmission cables & adaptors, attenuators, Rogowski coils, CTs, Electronic boards, microcontrollers, etc.
89.	Vacuum Grease
90.	Inert gas cylinders,
91.	Halide gases
92.	Vacuum and gas line components
93.	Metal flanges, vacuum valves, gas line valves, etc.
94.	VUV/UV/Visible mirrors, lenses, filters, photodiodes, and other optical accessories, etc.
95.	Quartz Tubes suitable for VUV-UV radiations.
96.	Wax
97.	Diamond paste
98.	Diamond slurry
99.	Mirrors, lenses, other optical components & accessories
100.	DFB Laser
101.	VCSEL laser
102.	Laser driver
103.	f-theta lens
104.	Prisms, beam splitters
105.	Reflection imaging arm
106.	Other electronic components
107.	Stabilized Tungsten-Halogen Light Source, 300 - 2600 nm
108.	Collimation Packages for Stabilized Light Sources
109.	Replacement Tungsten-Halogen Bulb
110.	Filter Holder for Optics
111.	Bifurcated Fibre Bundle, Ø600 µm, Low OH, 2 m, 400 - 2200 nm
112.	Bifurcated fibre Bundle, Ø1000 µm, Low OH, 2 m, 400 - 2200 nm
113.	Reflection Probes with small tips VIS/NIR, 2 m length, SMA
114.	Large Numerical Aperture lenses
115.	Collimation package
116.	Triplet collimation package 1650 -2400 nm
117.	Fixed focus collimation package
118.	Air-Spaced Doublet Collimators - SMA
119.	NIR Bandpass laser line filters 1 inch 700 - 1650 nm Centre Wavelength
120.	IR Bandpass Filter kit
121.	Filter Wheel Mounts/Stations for Ø1" Filters
122.	V. Wavelength Specific Diode Sources
123.	Laser diode sources

124.	NIR Laser Diodes: Centre Wavelengths from 705 nm to 2000 nm
125.	Aspheric Lens Kit with Adapters, AR Coating: 1050-1620 nm
126.	Mounted Photodiodes
127.	InGaAs Photodiodes - NIR Wavelengths Long Wavelength Range and Large Active Area
128.	Photocurrent Measurement Modules
129.	DC Bias Module for Mounted Photodiodes BNC Input, SMA Output
130.	Optical Breadboards,
131.	IOT Based development board with SDK
132.	Embedded hardware kit with accessories
133.	Sensors
134.	Actuators
135.	RF Modules
136.	Wireless Modules (Wi-Fi, Blue Tooth etc)
137.	Batteries, Power Backups
138.	USB Camera
139.	Audio Head set
140.	Storage Hard disk
141.	Digital pad/graphics Pen tablet
142.	USB-RS232, USB-Mini, Usb to USM cables
143.	Wires, Connectors, PCB etc
144.	Multi-Meter
145.	Cleaning Solution (Hexane, 2.5 litres)
146.	Printer Cartridge
147.	White Board
148.	Stationary Items
149.	Component Rack
150.	Document Racks
151.	UPS for the computers & Equipment
152.	Printer Cartridges, Pen Drive, Stationaries, Embedded Boards etc.
153.	Various Embedded development boards, Processors Chips, OLED, optical and other sensors, batteries, switches, steering wheel covers, conductive clothes, seat covers, wires, soldering accessories, USB cables, AMC ,Purchase repair, modification and upgradation of Simulator, Purchase of accessories for the car simulator
154.	Electronic components such as microcontroller, ADC, OP-AMP and level shifter, Power controller etc.
155.	Optical Components such as Lens, Grating, Filters
156.	Electronic circuit fabrication and Mechanical circuit fabrication
157.	PbS detector array
158.	NIR Source and Detectors
159.	Optomechanical Components such as mount, post, optical breadboard etc
160.	IR emitters (single, dual, quad channels)
161.	IR detector array
162.	flow cell windows ZnSe, CaF ₂ , spacers
163.	Spacers and other mechanical accessories
164.	Electronic & mechanical components.
165.	Fabrication of Electronic circuit and mechanical parts.
166.	White board
167.	General consumable items like cartridges, batteries, diesel for generator etc
168.	AMC of water purifiers

169.	AMC for Air conditioners
170.	AMC for computer system
171.	Network Maintenance items
172.	Network Wiring and Maintenance
173.	Welding Consumables, Hand Tools, Machine Tools, EMD wire, Metal Rods, Metal Sheets and other Misc. consumables for workshop
174.	Chemical and Waste Disposal
175.	Safety Items and Consumables
176.	Refilling of Fire Extinguisher