

List of Chemicals and Consumables prioritized to be procured during FY 2021-22

Item Name
MOCVD spare parts
Nano second laser for laser dicing
E-beam Spare parts
Liquid Nitrogen
AMC hydrogen plant
Maintenance of 150TR chiller
AMC UPS
UPS Battery 160VA, 200VA
Software Licenses renewal AMCs. (Web Portals, UTM licenses renewal, Vmware support renewal, website updates and patches, STQC/Security Audit Certifications etc.), Email services Fees etc.
IOT board and display for FRAS system
Cleanroom Consumables (Apron, glass wares, electrical items, filter paper, tissue paper, clamps, gloves, O-rings, flanges, SS tubes, PVC/PPR pipes etc.), Fire extinguisher refilling
Spare parts of machines
AFM Raman and LDV repairing, Lathe Machine servicing
HV cable for SEM
Chemicals ((Acetone Methanol HNO3 HCL H2SO4, Chromic Acid and other as per requirement)
Specialty and regular gases (O2, H2, N2, Ar, DA, CF4, SF6, CHF3, NH3, PH3, B2H6, CO2, Cl2, BCl3, C4F8 etc.)
Internet lease line and other network related items
Polishing slurry, pad, conditioning ring and nozzles, other fabrication materials such as wafers, noble metals, bonding tools, bonding wires, tube connector, ferrule, nuts, wires, gauges, controller, PLC etc.
Incidental charges for gas transportation and good loading unloading, export of old laser
VAT valve for sputtering machine
Consumables for Microwave based Waste Management System (MWMS) (Gas Pipe Lines and line adaptors, Double Sided ,Copper Tape Quartz Cutter, Wire Cutter, Stripper, Teflon Wires, Tapes, Soldering Wire, Iron Nitrate, Aluminum Nitrate, Citric Acid etc, Gas Collection Bags , Oven Magnetrons with power supply, Waveguides, Stub tuner, Circulator , Antennas, Thermocouple ,Boards, circuit elements etc. .Weight measurement unit, Mass flow controller, Quartz Tray, Material (SS Sheets, Teflon, etc), Brazing alloy ,Loss less RF cable for PNA, Precision RF connectors with different specifications, Triple Carbonate solution (Ba-Sr-Ca)CO3, Ni-powder.
Chennai Centre: Stepper motor and mechanical structures Diesel generator comprehensive AMC Source for Nicolet 6700 spectrophotometer AMC for Nicolet 6700 spectrophotometer Shifting and service of Fluro log 3-21
Workshop Consumables (workshop consumable items sheet, rod, welding rod tool bit, wire spool, 3D printer material, print head
RO water plant requirement: filter cartridge 5um,10um, RO membrane, Citric acid granules, PVC Pipe and connectors, Filters and UV tube

Vacuum grade material like OFHC copper, Tungsten, thoriated tungsten, Molybdenum, SS, Kovar, soft iron, nickel, brass, Enamelled copper wire and chemicals, appendage pumps with controllers, 2 KW heating magnetrons, permanent magnet
Brazing alloys, ceramics
Power supply components, ICs, switching devices, passive components, software up-gradation
S-band waveguide component, load, attenuator etc
Brazing alloys with various specifications/sizes
Cathodes (03 Nos.)
High Power RF Window
Metallized Ceramics/lead sheets/kovar/monel/nickel/soft iron/OFHC copper/SS etc. with different specification/sizes
APBN Rods
Window ceramics
Dispenser Cathodes (03 Nos.)
Metallized Ceramics, Lossy ceramics and RF window
Molybdenum /OFHC copper/SS /Monel/brazing alloy, etc. with different specification/sizes, Components of HV power supply
Osmium Sputter target
Mass Flow Controller
Vacuum components
Accessories of table top DI plant
Heater wire
Electrical and electronics items, Laboratory items like gloves, tissue paper, etc
Metals SS, OFHC, copper, wires, etc. Insulators: Teflon, Perspex, ceramics, etc.
Electrical Components /Materials 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.
Vacuum Components: Vacuum Grease, vacuum and gas line components, metal flanges, vacuum valves, gas line valves, etc.

Gases: Inert gases (Xenon), Halide gases, etc.
Optical Components: VUV/UV/Visible mirrors, lenses, filters, photodiodes, and other optical accessories, Quartz Tubes-suitable for VUV-UV radiations, etc.
Photo-resist, Developer PG remover, filter papers, tissue papers, glass wares, chemicals (acetone, methanol, IPA, HCl, HF, HNO ₃ etc) Gloves, wax, epoxies, LED packages, yellow phosphor etc. metals like ITO, Au, Ni, Pt, Ag etc. wafers, MO sources, Gases (N ₂ , O ₂ , Ar etc), gold etchant, Au electroplating solutions, slurry, silicone gel and other lab/equipment consumables etc
Photo-resist, Developer, filter papers, glass wares, chemicals (acetone, methanol, IPA, HCl, HF etc), metals like gold, Ni, Ti, Al, Ag etc sputtering targets, Gloves, wax, LED packages, sapphire wafers, MO sources, gases (N ₂ , O ₂ , Ar, NH ₃ , H ₂ , BCl ₃ , Cl ₂ etc) and other MOCVD/ equipment/lab consumables etc.
Optical components(consumables): Including (Lens, Collimator, Optical Filter, Resistor, Capacitors, Wires, IR Emitters, IR Detectors, CO ₂ Sensor, LEDs, Solder wire, Bread board etc. (consumables) Fabrication related Consumables: Screen printing related materials, adhesives (solder pastes and epoxies etc), LTCC tape and paste system, Chemicals, sacrificial/mixer materials, Potting compounds, Modifiers, Alumina substrates of different compositions, thin film materials etc. Via-punch tools, Resistor paste series, Thick-film Paste (Ag, PdAg, Au, AuPt, Pt, etc.), Glass wares, Teflon, Perspex, High resolution photoplots and masks, Cartridges, Different coating materials, different types of gases, Organic & Inorganic chemicals, different material for packages, few EDM tools etc. SS, Brass, glass wool, Jigs, fixtures adapters, Sealants, Leads, Au/Ag/Pt Bond wires, Glass to metal seal, glass rods, glass tubes, micro needles, Alloy tubes/sheets, Metal tube/sheets, reflectors Electrical/ Electronics consumables: Emitter, thermopile, Computer accessories, Microcontroller unit, COTS sensors, batteries, Power banks, electronic components (ICs, op-amps, resistors, capacitors, crystals etc.), sensors, adapters, photodetector etc.
Wafers, Sputtering Targets, chemicals, epoxy, TO headers, filters, windows, IR sources, IR detectors, gases, ceramics, resistors, transistors
Krypton bulbs (10 Nos)
DLP® 0.2 WVGA NIR DMD (05 Nos) DLP2010NIRAFQJ
NIR Grating (Reflective and Transmission) and grating mount
NIR detector (PbS, InGaAs) single pixel
NIR detector array (Pbs and InGaAs)
NIR wavelength standards (Transmission and diffused reflectance)

Lenses of light collimation and focusing and lens mounts
Other Misc. optical components
DMD controller and DLP power control modules
PbS Array evaluation module
Other electronic components such as ADC, microcontroller, power IC etc.
Optical design software, optical sources (broad band IR sources), IR detectors, calibration standards, mechanical motors and related assembly for mirror movement, electronic components, enclosures, chemicals, mechanical parts, electrodes and multi-layer PCB fabrications, service and annual maintenance of the equipment's etc.
Optical sources, embedded processors, development boards, detectors/detector arrays, filters, slits, gratings, and windows (specially designed and fabricated as per requirement of the system). The other consumables are electronic components, mechanical enclosures, mechanical parts, electrodes and multi-layer PCB fabrications, service and annual maintenance of the equipment etc.
Semiconductor fabrication consumables like electroplating solutions, etchants, wafers, SS/Al/MS sheets, pipe fitting, Feedthrough, Desiccators, Wire for ion source, Sensors and ICs, renewal of software license, other small miscellaneous parts, etc
PCBs, RF Connectors, RF Cables and accessories, ICs, Microcontrollers, LCD, Sensor and discrete components, Other miscellaneous components etc
SS rod/ PFHC Copper, Teflon, perpex rod, wires, SS sheet, perpex sheet, ceramics, capacitors, resistors, attenuators, electrical feed, high power capacitors, low inductance resistors, high voltage insulated metal wires and cables, vacuum grease, inert gas cylinders, vacuum and gas line components, metal flanges, upgradation of vSIM software, high frequency connectors, high frequency transmission cables, adopters, attenuators, Rogowski coils, CTs, waveguides, antenna, high frequency absorbers, mirrors. Lenses, f-theta lens, electronic boards etc.
Photoresist+Developer, beaker and other glassware, silicon wafer, chemical and gases, wafer carrier, machine spares, cartridges etc.
Semiconductor switches and drivers, capacitors/resistors and passive elements, transformer/ inductor cores, bobbin and fabrication, wires, insulating material, connectors, electrode material and fabrication, power supply PCB fabrication
ICs, electronic components, embedded boards, light sources, detectors, op-amp buffers, drives, communication ICs, processors, controllers, optical components, light sources, detectors, optical window, notch filters, mechanical spares, maintenance of portable spectrometer, light source texture analyser, laptop, workstation and UPS
Casting/fabricated machine parts
Embedded platforms/edge processing platforms with vision sensors, display and other accessories
Peripheral circuits, small embedded boards
chip fabrication, PCB fabrication, IC Boards, LED Source, detector, optical filter
Chemicals: BaCO ₃ , CaCO ₂ , Al ₂ O ₃ , Vacuum components, metal sheet, rod, wires, electronic and electrical items, HV switch, HV capacitors, cables, water and gas line fittings (pipe, connectors, tees and elbows)
PCB Fabrication, resistor, capacitors, inductor, rf cables, connectors, Lion battery
Different types of ceramics, metals, vacuum grade material/ metals (SS OFHC, moly, tungsten, copper, Teflon, Perspex), electrical and testing components (capacitors, resistors, attenuators, electrical feed through, wires and cables, high voltage robes, MOSFET/IGBT, development boards, high frequency connectors, high frequency transmission cables and adopters, aRogowski coils, CTs, electronic boards, microcontrollers etc., software upgradation

SS rod/ OFHC Copper, Teflon, Perspex rod, wires, ss sheet, Perspex sheet, ceramics, capacitors, resistors, attenuators, electrical feed through, wires and cables, high voltage robes, MOSFET/IGBT, development boards, high frequency connectors, high frequency transmission cables and adopters, aRogowski coils, CTs, electronic boards, microcontrollers etc, vacuum grease, inert gas cylinders, vacuum and gas line components, metal flanges, vacuum valves, gas line valves etc., high frequency connectors, high frequency transmission cables and adopters, attenuators, waveguides, antenna, high frequency absorbers, waveguide transitions, MW connecting flanges and connectors, oven magnetrons, metal to glass sealing, quartz, pressurizing waveguides, VUV/UV visible mirrors, lenses, photodiodes, optical accessories, electronic boards, microcontroller, upgradation of plasma softwares, PSIM, MATLAB, SPICE,AMC of some minor softwares
Hub brushless DC Motor, F/R, BLDC Motor pully type, AC/DC Current probe clamp, lead-acid battery, load cell sensor, current sensor, ACS winson, voltage sensor, active components, microcontroller/dsp processor, ST debugger programmer, TI debugger programmer, passive components resistor, capacitor etc., embedded development boards, motor drive boards, RAM, SSD, tricycle accessories, dynamo motor and coupler
Electrical components: Flexible high voltage silicon cable, RF cable with connectors, BNC to RF adaptor, theme bail, crocodile clip, BMC and SMA connectors, high voltage tape
Vacuum components: 35CFF/63CFF copper gasket, 35CFF/63CFF flange with nut bolts, high voltage feed through, view parts
Chemicals; graphite flakes, sulphuric acid, phosphoric acid, hydrogen peroxide, litmus paper etc.
Alumina rods, w-band detector, mixer, amplifier, connectors etc.
Optical components (filters, LED source, detectors, detectors array
Passive components (resistance, capacitors, inductor, bread board)
Active components (ICs, transistors, FET MOSFET)
LTCC tapes and paste material, sacrificial/ mixer materials, alumina substrates, rods, thick film paste, resistor paste series, screen meshes, screen preparation materials, screen printing related materials, solder pastes, epoxies, sealants, adhesives, leads, Au/AGPt bond wires, chemicals, sealants, adhesives, leads, glass wares etc
LTCC tapes and paste material, sacrificial/ mixer materials, alumina substrates, rods, thick film paste, resistor paste series, screen meshes, screen preparation materials, screen printing related materials, solder pastes, epoxies, sealants, adhesives, leads, Au/AGPt bond wires, chemicals, sealants, adhesives, leads, glass wares etc.
Gas and Pressure sensors