

**List of Apparatus & Equipment prioritized to be procured during FY 2021-22**

<b>Equipment Name</b>
FESEM
3-Axis Co-ordinate Measurement Machine
Mini Impedance Analyzer (Up100Hz to 10MHz)
Microwave Digestion system
Attendance management software for FRAS
Laser Cutting Machine
Origin Pro
Workshop tools: EMD wire cut software, UPS (15KVA) for EDM, Folding/Bending Machine, Compound Miter Saw12", Jig Saw Machine, Air compressor, Motorized screwdriver tool, Workshop Quality control tools ("0" Grade Slip Gauge Set, Surface Roughness Tester,300 mm Height Gauge (With Dial Test Indicator), Caliper& Height Gauge Checker (for Calibration), Micrometer (Inside & Outside), Vernier Caliper, Granite Surface Plates (1000*1000*200 mm)
Optical layer simulation
Bio Shredder
Fire alarm detection and suppression system
CCTV camera for cleanroom and institute
Toxic gas cabinet and exhaust system
CNC Vertical Machining Center
Atomic layer Deposition (ALD) System
Deep reactive ion etching (DRIE) system
Core Switch for network
Gas Chromatograph
Acoustic calibrator
DI water Purification System
Glass blowing laboratory equipment
Ultrasonic Cleaner
Power supply, soldering iron, transformer winding machine
Dedicated Software (CST, Solid works)
Ion pumps with controller and gauges

Recirculating chiller unit
Electromagnet with suitable power supplies
High Power RF load (water cooled) including necessary RF component/accessories required for hot testing of klystron
Water chiller unit
TNC and WR-51 Calibration kit
1 tesla electromagnet and its power supply with cooling system
Appendage pump with control unit (10 or 8l/s)(3 nos)
High voltage power supply and HV characterization components (HV probe, CT, etc.)
RF components for characterization (Dummy load, Coupler, etc.)
Porosity meter
Die shinking Machine
Weighing machine
Other Lab Equipment such as measuring equipment etc.
Absolute VUV-UV intensity meters
Gas line and Vacuum Line components (Gauges, flow meter and controllers, etc.)
Other minor lab apparatus like, Optical and opto mechanicals components such as tables, stages (motorized and manual), lock in amplifier, multi-meters, soldering irons, tool kits, temperature measurement kit, UPS, etc.
Low-temperature photoluminescence
In-situ curvature monitoring for MOCVD
Chiller for MOCVD
Hydrogen purifier
Software
Wire bonder with bump
Phosphor dispensing system
Workstation, computer, laptop, multi-functional printer
Other minor lab apparatus like Dehumidifier etc
TEM with sample preparation
Software
Workstation, Laptops/computer, multifunctional printer, UPS
Other minor lab apparatus
Design Software (lumerical)

Isotatic Laminator with Bag sealer
Laser Welding
Vacuum Pump
Pyrometer
UPS
Lapping and polishing machine
Differential scanning calorimeter (DSC)
Thermal evaporator
Probe station and Digital temperature controller
Other miner lab apparatus like DC power supply, Silicone oil bath, heater, chiller etc
Optical spectrum analyser (NIR and MIR Range) for calibration of source along with accessories
Stabilized fiber coupled IR light source
UV-Vis portable spectrometer and light sources
Standard Quadrupole mass analyser, Software (Comsol, HFSS, etc), Gas/VOC chamber, Power supply, Compact vacuum Pump and other miscellaneous equipment
RF Spectrum Analyzer, RF Field Meters and Other miscellaneous equipment
High frequency oscilloscope
THz camera
THz source
Workstations
V-Sim license
Minor equipments
Light source and portable spectrometer
Thermomixer freezer and small thermal chamber
Mobile Science Equipment Van (Utility vehicle)
X-ray baggage scanner and its accessories
Software modules with source codes
Cadence ORCAD Tool, Advanced FPGA Board
Spark Plasma Sintering Machine and porosity meter
Digital phosphor oscilloscope, computers and laptops, trigger power supply, function generator
High frequency oscilloscope, workstations, high end PCs , laptop, microwave ovens, microwave sources, minor equipments
High end oscilloscope
Vibration free table

YIG Oscillator and w-band source
FTIR
Portable monochromator with light source or Laser Raman spectrophotometer
High temperature furnace (upto 1200 degree c)