

## Bengaluru Zone

Sl. No.	Lab Name	Details of Test Facilities
1	ADE	(i) Climatic Test Chamber
		(ii) Combined Temp Altitude & Humidity Test Chamber
		(iii) CS114,CS 115 & CS116 TEST SETUP
		(iv) EMI TEST RECEIVER
		(v) Fast Temp Change Test Chamber
		(vi) Hot Cold Humidity Camber
		(vii) Mechanical Centrifuge Machine
		(viii) Pneumatic Shock Testing Machine
		(ix) Thermal shock Test Chamber
		(x) Vacuum Cold-Heat Camber
		(xi) Vibration Test System
2	LRDE	(i) 1 Ton Vibration Test Facility
		(ii) 3 Ton Shock & Vibration Test Facility
		(iii) 5 Ton Shock & Vibration Test Facility
		(iv) Acceleration Test Facility
		(v) Acceleration Test Facility with Rotary Joints
		(vi) Active Array Antenna Measurement and Diagnostic Test Center
		(vii) Aircraft Electric Power Characteristics Simulation Test Facility
		(viii) Antenna Test Site
		(ix) Automated Planar Near Field Measurement
		(x) Driving Rain Test Chamber
		(xi) Dust Test Chamber
		(xii) HALT - HASS Test Chamber
		(xiii) Impact Test Facility
		(xiv) Near Field Test Range
		(xv) Pulse Current Injection Facility
		(xvi) Rain Drip Test Facility
		(xvii) SALT Corrosion Test Chamber
		(xviii) Semi-Anechoic EMC Test Facility
		(xix) Spherical Near Field Measurement
		(xx) Temperature and Humidity Test Chambers
		(xxi) Temperature Cyclic Test Chambers
		(xxii) Temperature, Altitude and Humidity Test Chamber
		(xxiii) Thermal Shock Test Chamber
		(xxiv) Walk-in Test Chamber
		(xxv) Wide Band Radiated Transient Test Facility

3	ANURAG	(i) Emulator
4	CABS	(i) Climatic Chambers (ii) EMI EMC Test Facility (iii) HALT HASS Chamber (iv) Indoor Far Field Measurement Facility (v) Lightning Test Facility (LTF) (vi) Planar Near Field Measurement (PNFM) Facility (vii) Shock & Vibration Facility
5	CAIR	(i) BeSTORM Dynamic Multi Protocol Fuzzer Tool (ii) Test-bed for static and dynamic source code analysis
6	CVRDE	(i) Altitude Test Rig (ii) AMAGB Endurance Test Rig (iii) Attitude Test Rig (iv) Back to Back Test Rigs for PTO Shaft (v) Bearing Endurance Test Rig (vi) Bearing Frictional Torque Test Rig (vii) Misalignment Cycle Test Rig Misaligned Rotor check Axial 5 mm Parallel 11.15 mm (viii) Static Thrust Test Rigs (ix) Torsional Fatigue Test Rig (x) Vibration Test Rig - I (MVH 90C and MVH 200C)
7	DARE	(i) EW Test range facility (ii) Fully shielded indoor antenna test facility (iii) HALT/HASS Test Facility
8	GTRF	(i) 1000 HP cyclic spin test facility. (ii) 10000 PSI Pressure Test Facility. (iii) 150 HP Fuel System Test Rig Facility (iv) 15000 PSI Pressure Test Facility. (v) 250 HP Fuel System Test Rig Facility (vi) 300 HP cyclic spin test facility. (vii) 3000 PSI Pressure Test Facility. (viii) 30000 Nm Shaft Fatigue Test Facility (ix) 3D Co-ordinate Measuring Machine (MAUSER) (x) 3D Co-ordinate Measuring Machine (MMZ - G) (xi) 3D Co-ordinate Measuring Machine (MMZ-T) (xii) 3D Co-ordinate Measuring Machine (Prismo Navigator)

	(xiii)	3D Non Contact Laser Scanning System
	(xiv)	3D White light Scanning System
	(xv)	500 HP Fuel System Test Rig Facility
	(xvi)	565 Nm & 1130 Nm Quill Shaft Fatigue Test Facilities.
	(xvii)	580 PSI Pressure Test Facility.
	(xviii)	6 IGPM Hydraulic Power Pack
	(xix)	60000 Nm Shaft Fatigue Test Facility
	(xx)	650 HP cyclic spin test facility.
	(xxi)	Actuator Test Rig
	(xxii)	Actuator Testing Power Pack
	(xxiii)	Air Supply Facility
	(xxiv)	Air Turbine spin test facility.
	(xxv)	Air Turbine Starter test rig facility
	(xxvi)	Augmented Simulation Rig Facility
	(xxvii)	Axial Compressor Test facility
	(xxviii)	Bevel Gear Test Rig
	(xxix)	Black Body No. 1
	(xxx)	Black Body No. 2
	(xxxii)	Borescopes (Rigid and Flexible)
	(xxxiii)	Calibration wind tunnel
	(xxxiv)	Combustor Test Facility
	(xxxv)	Compressed Air Gun
	(xxxvi)	Compressor test facility - 2
	(xxxvii)	Compressor test facility - 3
	(xxxviii)	Data Acquisition System (National Instruments)
	(xxxix)	Dilatometer
	(xl)	Dynamic Spin Rig
	(xli)	Eddy Current Test Equipment
	(xlii)	Electro Dynamic Shaker System - 6 Ton
	(xliii)	Emissometer
	(xliv)	Engine Casing Structural Test facility for simulation of multi axial loading capability.
	(xlv)	Engine life counter
	(xlvi)	Engine test cells
	(xlvii)	Environmental Control System Test Facility
	(xlviii)	Ethernet Based Pressure Measurement system by Scanivalve.
	(xlix)	First Stage Pump Test Rig Facility
	(l)	Flow Calibration System
	(li)	Fluorescent Penetrant Inspection System
	(lii)	Foreign body ingestion test facility.
	(liii)	Full power absorption test facility for Gas Turbine Engine Gear box.

		(liii)	Fused Deposition Modelling
		(liv)	Gas Analyzer
		(lv)	Gas turbine After burner Small scale (1-3rd) test facility
		(lvi)	Gas Turbine Rotor Blade HCF test facility
		(lvii)	Heat Transfer Test Facility
		(lviii)	High speed camera (Photron SA 1.1)
		(lix)	Hydraulic dead weight tester
		(lx)	Image Analysis System
		(lxi)	Immersion C-scan Ultrasonic System
		(lxii)	Industrial Videoscope - Videoprobe image processing system
		(lxiii)	Integrated Nozzle Actuation System Test Rig
		(lxiv)	Lubrication pump test rig (CPSU Test rig)
		(lxv)	Magnetic Crack Detector with Demagnetizer
		(lxvi)	Mass Flow Rig
		(lxvii)	Nano Indentation System
		(lxviii)	Nozzle Loading Power Pack
		(lxix)	Online - Exhaust Gas Analyser System
		(lxx)	Optical Microscope
		(lxxi)	Portable fuel control system test rig facility
		(lxxii)	Qualification Test Facility For Compact Heat Exchangers
		(lxxiii)	Radiation Pyrometer System
		(lxxiv)	Radiometric Infrared Thermal Imaging System LWIR / MWIR / SWIR
		(lxxv)	Reference standard air, gas operated piston gauge dead weight tester
		(lxxvi)	Reservoir Charging Unit (RCU)
		(lxxvii)	Residual Stress Measurement
		(lxxviii)	Rockwell and Superficial hardness tester
		(lxxix)	Scanning electron microscope
		(lxxx)	Simulation Rig Facility (SRF)
		(lxxx1)	Stereo zoom microscope
		(lxxx2)	Stereolithography (SLA) - 5000
		(lxxx3)	Temperature calibration set-up
		(lxxx4)	Thermal Fatigue Test Rig
		(lxxx5)	Ultrasonic Flaw Detector
		(lxxx6)	Ultrasonic Thickness Gauge (Panametrics 35DL+)
		(lxxx7)	Universal Testing Machine
		(lxxx8)	Warm Air Turbine Test Facility

		(lxxxix) X- Ray system
		(xc) X-ray fluorescence (XRF)
9	MTRDC	(i) Auger Electron Spectroscopy System
		(ii) Bell Type Hydrogen Furnace
		(iii) Electronic Dynamic Vibration Shaker - Model SEV 060
		(iv) Environmental Test Facility
		(v) High voltage test bench for TWTs with IEEE - 188 Interface
		(vi) Network Analyser
		(vii) Phase Noise Analyzer Model (PN 9100)
		(viii) Plasma Cleaning System, Type NANO, SI. No. 80421
		(ix) Scanning Electron Microscope
		(x) Signal generator E8257DS10
		(xi) Spectrum Analyser (PXA) Agilent N9030A PXA
		(xii) SUNNEN Honing Machine MBC 1805 H
		(xiii) X-ray fluorescence spectrometer
10	NPOL	(i) Acoustic doppler profiler
		(ii) D33 meter
		(iii) Digital X Ray Radiography Unit
		(iv) Floating platform FP Kuravan
		(v) High pressure electrochemical work station
		(vi) Infrared thermography unit
		(vii) INS Sagardhwani
		(viii) LMS test lab system
		(ix) Main Acoustic Tank
		(x) Material and transducers simulated test centre
		(xi) Ocean data centre
		(xii) Pressure test facility
		(xiii) Vibration test facility