Centre of Excellence on Machine Tools Design

IIT (BHU) Varanasi

Facility Usage Charges

Name of Facility	Type of Tests	TYPES OF USERS AND RATES IN RUPEES (₹)		
		IIT (BHU)	**Other Academic Institutes/Government R&D Labs**	**Industries User**
Micro Vickers/Knoop Hardness Testing Machine	Vickers hardness/ Knoop hardness (***Upto 5 indentations***) (**per sample**)	100	200	800
	Fracture toughness test of fine ceramics (Using Hardness Test) (**per sample**)	150	300	1200
Optical Microscope for Microstructural Analysis (Leica DM2700 M)	Microscopic inspection for metallography (**per sample**) (***per sample maximum 5 images***)	50	100	400
Stereo Microscope	Microscopic analysis of failure mechanism of materials, deformed surfaces of composites, metallic microelectronic structures (Maximum 5 images) **(per sample)**	50	100	400
Corrosion Testing Facility (Metrohm Autolab Pgstat204 and NOVA software)	Cyclic Voltametric (CV) **(per sample)**	250	500	2000
	Electrochemical Impedance Spectroscopy (EIS) **(per sample)**	250	500	2000
	Galvanostatic charge-discharge of battery **(per hour)**	250	500	2000
	Potentiodynamic Polarization Test **(per sample)**	250	500	2000
Computerized Casting Furnace for Metal Matrix Composites in Al and Mg	Casting for Metal Matrix Composites for Al and Mg	500	500	500
Coordinate Measuring Machine (CMM)	Metrological inspection **(per hour)**	300	600	1500
Optical Profilermeter	Metrological inspection **Surface Roughness/ Bearing Ratio Curve (per hour)**	500	1000	1500
Direct Energy Deposition	AM/ Cladding/ Welding/ Remelting/FGM Development/Hardening **(per hour)**	1000	1500	2000
Metallographic Sample Preparation	Cutting/Mounting/Auto Polishing **(per sample)**	50	100	200
50 kN Servo Hydraulic Static & Dynamic Testing Machine INSTRON MEDIAN 50 (UT-04-0050)	Tension/Compression test at **Room temperature (RT) (per sample)**	200	400	800
	Tension test + Temperature controlled chamber (**from RT to 500 °C**) **(per sample)**	400	800	1600
	Fatigue at RT **(per hour)**	500	1000	2000
	Fatigue + Temperature controlled chamber (**from RT to 500 °C**) **(per hour)**	800	1600	3000

	Fracture Toughness measurement for KIc, JIc and CTOD Testing (As per ASTM E1820 and E399) (Only for CT specimen) (With fatigue precracking) **(per hour)**	800	1600	3000
	Corrosion fatigue **(per hour)**	1000	1500	3000

Note:

1. Above charges are exclusive of GST @18% and shall be charged extra for external users.
2. Only test data will be provided. If help is sought for analysing the test data, consultancy charges @Rs. 1000/hour will be charged.
3. Charges mentioned are only operating charges excluding of any consumables required.