

USPCASE Lab Tests Charges for NUST Researchers

S No		Test Description	Rate (PKR)
1	AEMS	X-ray Diffraction (XRD)	400
2		Simultaneous Thermogravimetry and Differential Thermal Analyses (TG-DTA)	1,500
3		FTIR Spectrometer	300
4		BET LP Sorption Analyzer	2,500
5		Thermal Dilatometer	2,000
6		Laser Particle Size Analyzer	500
7		UV-Vis-NIR Spectrophotometer	300
8		Atomic Force Microscopy (AFM)	1,800
9		LCR meter	300
10		Hall Effect Measurement System	300
11		Microhardness Tester	600
12		Electrochemical Work Station (per slot)	500
13		Electronic Load Analyzer	300
14		Thin film spectrometer	400
15		Optical microscopy	300
16		Raman Spectrometer	300
17		*Magnetron Sputtering	3,000
18		*E-Beam Evaporation	3,000
19		*Thermal Evaporation	1,500
20		*Advanced Thermal Evaporation	3,000
21		*Carbon Coating	1,000
22		*Chemical Vapor Deposition	3,000
23		Spin Coating	300
24		Dip Coating	500
25		*Electro Spinner	500
26		Electrophoretic	1,000
27		Ultrasonic Spray	1,500
28		*Ball Milling / Roll Milling (per slot)	700
29		*Grinding and Polishing	500
30		Hydraulic Press	750
31		Plasma cleaning	400

32		Salt Spray (per day)	3,000
33		Spray Dryer	2,500
34		**Tube Furnace	800
35		Muffle Furnace	300
36		Sand Blasting	300
37		**Atmospheric Plasma Spray	3,500
38		**High Velocity oxy Fuel Spray	3,500
39		**Powder Combustion Spray	2,000
40		**Wire arc spray	1,500
41	Biofuel Lab	Total Organic/Inorganic Carbon analyzer (TOC)	3,300
42		HPLC	1,500
43		UV-Visible Spectrophotometer	300
44		Polymerase Chain Reaction (PCR)	1,500
45		Flash Point Tester	300
46		Gas Chromatography	1,000
47		Rotary Evaporator	500
48		Soxhlet Extractor	500
49	Energy Conversion Lab	Maximum Power determination	1,500
50		Performance at STC (IV Curve Test)	1,500
51		Performance at Low Irradiance	2,000
52		Leakage Current (Dry/Wet)Test	1,000
53		Static Mechanical Load Test	1,500
54		Hail Impact Test	1,000
55		Stabalization	1,000
56		Electroluminesence Imaging Test	800
57	Energy Storage & Conservation Lab	Muffle Furnace	300
58		Electrochemical Work Station	500
59		Tube Furnace	800
60		Battery Testing	300
61		Four Probe Conductivity meter	200
62		Coin cell fabrication	1,500
63		High Pressure Sorption Analyzer	3,000
64	Fossil Fuel Lab	TGA	1,500
65		CHN-S Elemental Analyzer	2,000
66		Ash Fusion	2,000

67		Reactor / Pyrolyzer	6,000
68	Smart Grid	Protection Relay Development System	1,000
69		Power Measurement System	1,000
70		NI Phasor Measurement Unit Development System	500
71		FPGA Based Rapid Control Prototyping	600
72		Transient & Frequency Measurement Setup	1,000
73		Power Quality Analyzer	1,500
74		Programmable Electronic Load, High Voltage	500
75		Smart Grid Automation along with SCADA & DCS	500
76		Environmental Chamber	1,500
77		Battery Simulator	500
78		High Voltage Probs	500
79		Differential Probs	500
80		High Voltage Power Supply	400
81		D-Space	1,000
82	Power Amplifier	1,500	
83	HV Lab	High Voltage Construction KIT AC Voltage Generation upto 200KV DC Voltage Generation upto 280KV AC/DC Voltage withstand test AC/DC Voltage flashover test Specimens: Transformers, Dry/Wet Insulators, Cables, Solid, Liquid and Gases insulation materials, etc	600 (per each test)
84		PD Measurement test upto 100KV AC Specimens: Transformers, Insulators, Cables, Solid, Liquid and Gases insulation materials, etc.	700
85		Lightning Impulse Voltage Generator Voltage withstand test upto 400KV Specimens: Transformers, Dry/Wet Insulators, Cables, Solid, and Liquid insulation materials, etc.	600 (per each test)
86		Breakdown Voltage Test (Up to 75 kVac) on Solid Insulator Circular Disc	400
87		AC breakdown voltage test (Up to 60 kV) on Liquid insulation material	600
88		Solid Dielectric Analyzer Dielectric properties (Permittivity, Tan(δ), Capacitance, DC resistivity) of solid insulating material from room temperature to 170°C	400

89		AC (5KV)/DC (6KV) leakage current measurement test on insulators, cables etc.	300
90		Ultraviolet (UV-Light) Aging Chamber for 16 hours	400
91	Solar Energy	Three-Phase Power Quality and Energy Analyzer	400
92		EQE Measurement System	700
93		Photoluminescence Spectroscopy	1,000
94		Indoor IV Tester for PV cell	700
95		Contact Angle Measurement System	400
96	Thermal Lab	Bomb Calorimeter	1,500/-
97		Gas Chromatography Mass Spectrophotometer	3,000/-
98		Thermal Conductivity Meter	2,000/-
99		Differential Scanning Calorimetry	3,000/-
100		Viscometer	400/-
101		High Speed Camera	1,000/- per hour
102		Particle Image Velocimetry	2,000/- per hour
103		Flue Gas Analyzer	1,000/- per run

*An additional amount will be charged in case the applicant does not provide source material/targets or relevant material.

**An additional amount of 5000/- to 15000/- will be charged in case the applicant does not provide Powder, Gas, Wire or relevant material.

Note:

SRFs must be accompanied by proof of payment, such as; Payment can be made via Online/Internet Banking

Title of Account: **NUST CES**

Account Number: **22927000563601**

Bank Name: Habib Bank Limited (**HBL**) Pakistan Branch Code: **2292**

NUST Branch **H-12**, Islamabad NUST FTN/NTN **90137043**

Payment can also be made via Bank Draft / Pay order on behalf of beneficiary "CES RECURRING FUND"

NUST FTN/NTN **90137043**.

The quoted price for all portable items/equipment is for use within USPCAS-E, NUST premises only. For Contact:

AEMS Lab - 05190855279 & 05190855361

Thermal Spray Facility 05190855278 Thermal Energy Lab 05190855291 Smart Grid Lab 05190855292 Fossil Fuel Lab 05190855254

Bio Fuel Lab 0519085359

Energy Conversion Lab 051-90855362 High Voltage Lab 05190855341 Energy Storage Lab 05190855290 Solar Lab 0519085284