**TARIFF sheet**

**CENTRAL RESEARCH INSTRUMENTATION FACILITY (CRIF) w.e.f. 15-09-2023**

| Sl No. | Name of the Instrument | Method/ Condition | | Tariff for NITW Students | Tariff for External students / Industry (18 % GST Extra) |
|---|---|---|---|---|---|
| 1 | 400 MHz NMR | | | Per Sample | |
| | | 1H NMR | CDCL3 | ₹ 100 | ₹ 400/₹ 800 |
| | | | DMSO-d6 and other solvents | ₹ 200 | ₹ 500/₹ 1000 |
| | | | D2O for deuterium exchange | ₹ 200 | ₹ 800/₹ 1200 |
| | | 13 C NMR | CDCL3 | ₹ 200 | ₹ 600/₹ 2800 |
| | | | DMSO-d6 and other solvents | ₹ 300 | ₹ 1200/₹ 4500 |
| 2 | HR LC-MS | | | Per Sample | |
| | | | | ₹ 100 | ₹ 500 / ₹ 1500 |
| 3 | X-Band ESR | Room Temp | | Per Sample | |
| | | | | ₹ 200 | ₹ 500 / ₹ 1500 |
| | | Variable temp | | ₹ 400 | ₹ 1000 / ₹ 2500 |
| 4 | UV-Vis-NIR Spectrophotometer | Room Temp | | ₹ 75 per Sample | ₹ 400/ ₹ 1200 |
| | | | | ₹ 100 per Hour | ₹ 550/ ₹ 1750 |
| | | Variable temp | | ₹ 150 per Sample | ₹ 700/ ₹ 2500 |
| | | | | ₹ 200 per Hour | ₹ 1000/ ₹ 3000 |
| 5 | Fluorescence Spectrophotometer | Emission Spectrum | | ₹ 75 per Sample | ₹ 400 / ₹ 800 per Sample |
| | | | | ₹ 100 per Hour | ₹ 600 / ₹ 1200 per Hour |
| | | Excitation Spectrum | | ₹ 100 per Sample | ₹ 600 / ₹ 1200 per Sample |
| | | | | ₹ 150 per Hour | ₹ 750 / ₹ 1500 per Hour |
| | | Life Time | | ₹ 200 per Hour | ₹1000 / ₹ 2000 per Hour |
| 6 | ICP-OES | Single Element | | Per Sample | |
| | | | | ₹ 400 | ₹ 1200 / ₹ 4000 |
| | | Multiple Element | | ₹ 800 | ₹ 2400 / ₹ 8000 |
| 7 | XRD | | | Per Hour | |
| | | | | ₹ 75 ( For MME Dept.)<br>₹ 150 ( For other Dept. ) | ₹ 600 / ₹ 1200 |
| 8 | SEM | SEM | | Per Sample | |
| | | | | ₹ 75 ( For MME Dept.)<br>₹ 150 ( For other Dept.) | ₹ 1200 / ₹ 2500 |
| | | EDS | | ₹ 100 ( For MME Dept. )<br>₹ 200 ( For other Dept.) | ₹ 1800 / ₹ 3200 |
| 9 | UTM | | | Per Sample | |
| | | Room Temp | | ₹ 100 | ₹ 300 / ₹ 1000 |
| | | High Temp | | ₹ 200 | ₹ 600 / ₹ 2000 |
| | | Low Temp | | ₹ 200 | ₹ 600 / ₹ 2000 |
| 10 | TGDTA | | | Per Hour | |
| | | | | ₹ 100 | ₹ 500 / ₹ 1000 |
| 11 | DSC | | | Per Hour | |
| | | | | ₹ 100 | ₹ 500 / ₹ 1000 |
| 12 | Impedance Analyser | | | Per Hour | |
| | | Room Temp | | ₹ 100 | ₹ 300 / ₹ 1000 |
| | | High Temp | | ₹ 150 | ₹ 450 / ₹ 1500 |
| 13 | Furnace | | | Per Every 8 Hours | Per Hour |
| | | | | ₹ 50 | ₹ 150 / ₹ 300 |

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| Sl No. | Name of the Instrument | Method/ Condition | Tariff for NITW Students | Tariff for External students / Industry (18 % GST Extra) |
|---|---|---|---|---|
| 14 | Vacuum Arc Melting | | Per Sample | |
| | | | ₹ 100 | ₹ 300 / ₹ 800 |
| 15 | Miniature Spectrophotometer | | Per Hour | |
| | | | | ₹ 50 / ₹ 300 |
| 16 | CD-ORD | | Per Sample | |
| | | | ₹ 150 | ₹ 500 / ₹ 1500 |
| 17 | Vector Network Analyzer (ANRITSU, 1 MHz – 43.5 GHz) | S-Parameters ( S11,S12, S22,S21) | per Student per month | Per Sample |
| | | | ₹ 200 | ₹ 1000 / ₹ 3000 |
| 18 | Anechoic Chamber ( 0.8 to 43 GHz) | | per Student per month | Per Sample |
| | | a) Gain plot | ₹ 200 | ₹ 1500 / ₹ 4500 |
| | | b) Axial Ratio | | ₹ 1000 /₹ 3000 |
| | | c) 2D pattern | | ₹ 1500 / ₹ 4500 |
| | | d) 3D pattern | | ₹ 1500 / ₹ 4500 |
| 19 | Spectrum Analyzer (ANRITSU MS2720T, 9KHz – 43 GHz) | Spectrum plots ( AM/FM/SSB modulations Phase noise measurements Channel powers bandwidth measurements ) | per Student per month | Per Sample |
| | | | ₹ 100 | ₹ 1000 / ₹ 3000 |
| 20 | Automatic PCB Prototype Machine ( ETS-PCBMATE-AUTO) | | per sq. inch | |
| | | a) Singe sided PCB making (with Gerber file input) | ₹ 100 | ₹ 200 / ₹ 400 |
| | | b) Singe sided PCB making (without Gerber file input) | ₹ 150 | ₹ 300 / ₹ 500 |
| | | c) Double sided PCB making (with Gerber file input) | ₹ 200 | ₹ 400 / ₹ 600 |
| | | d) Double sided PCB making (without Gerber file input) | ₹ 250 | ₹ 500 / ₹ 1000 |
| | | e) Antenna Fabrication Material Cost(for FR4): ₹ 25 per Sq. inch for single side ₹ 50 per Sq. inch for double side | ₹ 150 | ₹ 300 / ₹ 600 |
| 21 | CHNS Analyser | CHNS Estimation | per sample | |
| | | | ₹ 500 | ₹ 1500 / ₹ 3000 |
| 22 | FTIR | Spectrum | per sample | |
| | | | | |
| | | | ₹ 50 (for Electrical Dept.) ₹ 100 (for other Dept. ) | ₹ 250 / ₹ 1000 |
| 23 | Liquid Nitrogen Plant | Liquid nitrogen | per litre | |
| | | | ₹10 (for Chemistry Dept.) ₹ 25 (for other Dept.) | ₹ 45 / ₹ 45 |

**TARIFF sheet**

**CENTRAL RESEARCH INSTRUMENTATION FACILITY (CRIF) w.e.f. 15-09-2023**

| Sl No. | Name of the Instrument | Method/ Condition | Tariff for NITW Students | Tariff for External students / Industry (18 % GST Extra) |
|---|---|---|---|---|
| 24 | Photo Chemical Reactor | | per every 6 Hrs. | |
| | | | ₹ 50 | ₹ 150 / ₹ 500 |
| 25 | Digital Microscope | | per slot | |
| | | | ₹ 200 | ₹ 500 / ₹ 1000 |

**Note: 1. Tariff for Tatkal Services (within 2 days) will be double the above-mentioned tariffs.**

**2. Result analysis by consultancy is also available on a chargeable basis.**