

| Research & Development and Equipment User/Testing Facilities at IIT Indore | | |
|--|---|------------|
| Equipment | Capability | Charges |
| Central Workshop | | |
| Heavy Duty Lathe | Swing over bed:500 mm, Distance between centre: 1500 mm | Rs.1500/h |
| Radial Drilling | Max. Drilling capacity Solid Steel : 50 mm, Cast Iron : 60 mm | Rs.1500/h |
| Drilling Machines | Max. Drill Capacity: 50 mm | Rs.1500/h |
| Horizontal Milling Machine | Table Length x width: 1250 mm x 250 mm Max. job weight on the table: 200 kg | Rs.1500/h |
| Vertical Milling Machine | Working surface: 1067 mm x 229 mm, Max. job weight on the table: 300 kg | Rs.1500/h |
| Gear Hobbing Machine | Gear dia. range: 75 - 250 mm, Max. width of the gear: 150-200 mm Pitch capacity: 2 M for steel, 2.5 M for CI, No. of teeth cut: 4-400 | Rs.1500/h |
| Slotter Machine | Max. stroke of ram: 250 mm, Rotary table area: 375 mm Cross travel of the table: 280 mm, longitudinal travel of the table: 280 mm | Rs.1500/h |
| Injection molding Machine | Max. Mould Weight Moving Plate: 277 Kg, Stationary Plate:143 kg. Min. Mould area: 22 cm x 21 cm | Rs.1500/h |
| Arc Welding | Operating arc voltage 20-40 V, Welding current range 50-400 A | Rs.1500/h |
| Oxy-Acetylene Gas welding | Complete set of gas welding. | Rs.1500/h |
| Spot Welding Equipment | Work Capacity :3.25 mm | Rs.1500/h |
| MIG Welding | Welding current and voltage range 10...450 A Max. welding voltage 53 V, Filler wire range 0.8 , 1.2,1.6 | Rs.1500/h |
| Deep Drawing Machine | 200 ton hydraulic press | Rs.1500/h |
| Sheet Metal Forming Machine | Min. Forming radius 1"- 2", Max forming length 48-1/2" | Rs.1500/h |
| Sheet Shearing Machine | Sheet metal press break 4" long 12 gauge capacity | Rs.1500/h |
| Surface Grinding Machine | Max. job that can be ground: 600 x 300 mm, Max. weight carrying capacity of the table: 300 kg | Rs.1500/h |
| Tool and Cutter grinder | Max. dia. of cutter: 250 mm; Max. distance between centres: 300 mm | Rs.1500/h |
| Induction Furnace | Output :30 KW, Frequency :3 KHz , Max. Temperature:1000 °C | Rs.3000/h |
| Advanced Manufacturing Process lab | | |
| CNC Multi-Process Micro-machining Center | Max travel (X,Y,Z):130,75,80 mm, Work table size (X,Y,Z):260,110,100 mm Position accuracy: ±1 micron | Rs.3000/h |
| Micro-Plasma and Micro-TIG Welding | Process Capability: Micro-Plasma/Plasma & MicroTIG/TIG Welding Amperage Capability: 0.1 - 80 amps | Rs.3000/h |
| CNC Wire EDM | Main Table Traverse (X,Y): 250, 350 mm, Max. Work piece weight: 300 Kg Max. Taper cutting angle: ± 5°/100 mm, Max.job height above table:250 mm | Rs.3000/h |
| CNC EDM | Maximum job weight: 300 Kg, Maximum electrode weight: 70 Kg | Rs.3000/h |
| CNC Turning | Swing over bed Ø 250 mm , Swing over cross slide Ø 85 mm Max. distance between centers 405 mm ,Max. turning diameter Ø 85 mm Max. turning length TC / TCM 270 / 256 mm ,Max. bar-stock diameter Ø 25.5 mm | Rs.3000/h |
| CNC Milling | Travel in X longitudinal 350 mm ,Travel in Y latitudinal 250 mm ,Travel in Z vertical 300 mm Min. clearance spindle nose – table 120 mm , Max. clearance spindle nose – table 420 mm | Rs.3000/h |
| Gear Research lab | | |
| CNC gear metrology machine | Max. Gear diameter 270 mm, Min. Internal gear diameter: 12 mm Max. Measurable face width: 300 mm, Max. Helix angle 90°, Control: 4-axis . | Rs.13000/h |
| Optical Surface Profiler System | Vertical Resolution < 0.12nm, RMS Repeatability <0.015nm Step Height (VSI) 1% accuracy, 0.1% 1 sigma repeatability Max Scan Speed 28 □m/sec (7x VSI), Scan Range 10mm | Rs.4000/h |
| Optical Microscope | Magnification: 50x, 100x, 200x, 500x, 1000x | Rs.3000/h |
| Coordinate measuring machine (CMM) | Measurement range X axis: 500 mm, Y axis: 600 mm, Z axis:400 mm, Resolution 0.5 µm, Repeatability 0.002 mm | Rs.4000/h |
| Metrology lab | | |
| Form/Shape tolerances measuring system | Testing diameter up to 210 mm, Measuring height up to 380 mm, Distance C/Z axis 218 mm. | Rs.1500/h |
| Contour measuring system | Measuring Range (X-axis): 200 mm, Resolution 0.05 µm | Rs.3500/h |
| Toolmaker's microscope | Eyepiece magnification 15x and objective magnification 2x, monocular with 30 degree depression angle, Max. Specimen height 115 mm, maximum workpiece load 5 kg | Rs.1500/h |
| Stylus type surface roughness measuring | Resolution 10 nm. Range: 12.5 mm | Rs.1500/h |

| | | |
|--------------------------------|--|----------------|
| Universal Tensile Tester | Tensile Test with proof stress with Diagram and Extensometer (Tensile test Up to 15mm) &50KN | Rs.500/Sample |
| Pendulum Impact Tester | Basic Pendulum 406 J, Drop Height 1052 m , Impact Velocity 5.47 | Rs.500/Sample |
| Micro hardness Testing Machine | Micro hardness (Vickers) / hardness Test (Brinell/ Vickers / Rockwell (A, B, C scales)) | Rs.1000/Sample |
| Torsion Tester | Capacity 100,000NM , Max. Specimen Diameter 38 mm, Max. Specimen Length 45 mm, | Rs.1000/Sample |
| Noise & Vibration Measurement | Noise & Vibration Measurement with FFT analysis | Rs.5000/h |

Contact Address

Dr. Narendra S. Chaudhari

Dean - Research and Development, IIT Indore,
Email id: dean.rd@iiti.ac.in

PACL Campus

Survey No. 113/2-B ,Village Harnia Khedi
Tahsil MHOW, Dist Indore, Madhya Pradesh, India
Office Telephone no. at PACL Campus: +91-732-4240703

IET Campus

M-Block, Institute of Engineering and Technology (IET)
Devi Ahilya Vishwavidyalaya Campus
Khandwa Road, Indore – 452017 Madhya Pradesh, India
Office Telephone no. at IET-DAVV Khandwa Road Indore
Campus: +91-731-2438721