

VERTICAL MACHINING CENTRE

Model	LV 45
Controller	Fanuc series Oi mate - MD
Machining are	450 x 350 x 350 mm
Table size	600 x 350 mm
Max. spindle speed	8000 rpm
Tool storage capacity	16
Max. tool diameter	80 mm
Max. tool Length	160 mm
Max. tool weight	8 kg
Spindle Taper	BT 40
Make	LMW



Charges

Usage of Equipment : Rs. 400 / hr
Consultancy Charge : Rs. 500 / Day

CNC TURNING CENTRE

Make	LMW Smart Jr
Controller	Fanuc series of mate - TD
Chuck dia	135 mm
Max. Turning dia	150 mm
Max spindle speed	3000 rpm
No. of Stations	8 nos
Tool shank size	20 x 20 mm
Max. boring bar dia	32 mm
Quill taper	MT4
Turret Indexing	Hydraulic

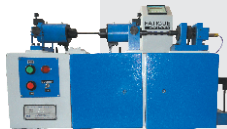


Charges

Usage of Equipment : Rs. 250 / hr
Consultancy Charge : Rs. 500 / Day

FATIGUE TEST

Max Bending Moment	400 kg.cm
Load (Adjustable)	5- 80 kg
Gripping Diameter	12 mm
Testing Diameter	8 mm
Length	226 mm
Rotating Speed	4200 rpm

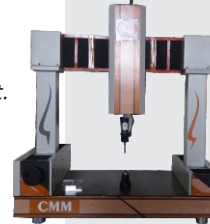


Charges

Usage of Equipment : Rs. 300 / Sample
Consultancy Charge : Rs. 300 / Day

COORDINATE MEASURING MACHINE

Type	Bridge type CMM
Measuring Range	300 X 200 X 200 mm
Maximum Part Weight	120 Kgs
Maximum Part Height	250 mm
Software	IK 5000 / MSU3DPro
Resolution	0.001 / 0.0005/0.0001 mm
Operation	Manual
Platform load capacity	1000 kg
Touch Probe	Renishaw
Z-axis Balance	Counter Wt.



Charges

Usage of Equipment : Rs. 250 / Sample
Consultancy Charge : Rs. 250 / Day

Contact Details

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KPR
Institute of
Engineering and
Technology

(Autonomous Institution)

Affiliated to Anna University, Chennai | Approved by AICTE, New Delhi

Accredited by NBA (CIVIL, CSE, EEE, ECE & MECH) and NAAC with 'A' Grade

An ISO 9001:2015 and ISO 14001:2015 Certified Institution

DSIR Certified Scientific and Industrial Research Organization

Arasur, Coimbatore - 641 407

**CENTRE FOR MACHINING
AND MATERIALS TESTING
(CMMT)**

Department of
Mechanical Engineering



ABOUT THE INSTITUTION

KPR Institute of Engineering and Technology (KPRIET), established in the year 2009 by KPR Charities. KPRIET approved by AICTE, New Delhi and affiliated to Anna University, Chennai, is dedicated for an unparalleled learning experience. This commitment is best reflected in its vision to become a globally recognized institute of engineering and technology by the year 2020. KPRIET is located on sprawling 150 acres of lush green campus with 5.7 lakh sq ft state-of-the-art buildings. Students and staff at KPRIET take great pride in the main features of the institute such as world-class infrastructure, top-flight faculty, well stocked library, high pass percentage, excellent placement record, unique student projects etc... This commitment to excellence is supported by a strong team of experienced professionals. In short, KPRIET stands tall as one of the best destinations for world class education.

The institute offers,

Under Graduate Programmes

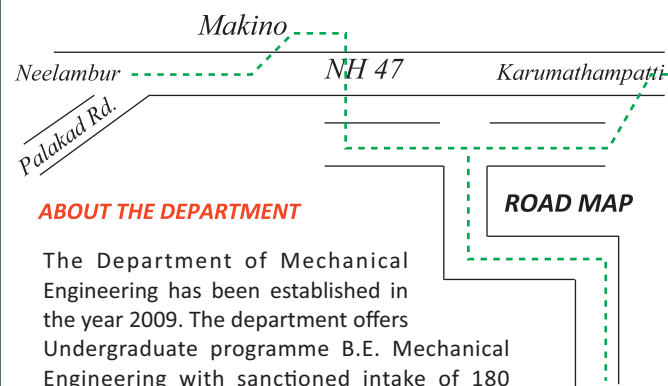
Biomedical | Chemical | Civil | CSE | ECE | EEE | Mechanical

Post Graduate Programmes

CAD | CAM | CSE | Structural | VLSI

Ph. D. Programmes

Civil | CSE | ECE | Mechanical | Physics | Chemistry



ROAD MAP

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering has been established in the year 2009. The department offers Undergraduate programme B.E. Mechanical Engineering with sanctioned intake of 180 students and Postgraduate programme M.E. CAD/CAM with sanctioned intake of 18 students. The department has separate block which includes state-of-art laboratories, CAD/CAM Centre with advanced software and department library. The department promotes smooth and good relations with Human Resources and Technical Experts from industries. Also the department encourages students to take part in industrial visits, internships and in-plan training.



CENTRE FOR MACHINING AND MATERIALS TESTING (CMMT)

- Stir Casting Setup
- Wear Testing Apparatus
- Ball Milling
- CNC Turning Centre
- Vertical Machining Centre
- Surface Roughness tester
- Fatigue Test
- Double Disk Polishing Machine
- Specimen Mounting Press
- Image Analysis System
- Coordinate measuring machine
- Profile Projector mach
- Linisher Polisher

STIR CASTING SETUP

Furnace Capacity 2Kg
Max. Temp. 1000 C
Stirrer 0 to 1000 rpm
Temperature Control PID
MS Die 30 dia x 300 mm
 25 dia x 150 mm
Square 25 x 25 x 150 mm
Flat 75 x 150 x 10 mm
Manual Bottom Pouring

Charges
 Usage of Equipment : Rs. 750 / Sample
 Consultancy Charge : Rs. 500 / Day



BALL MILLING

Powder input grain size 30 to 70 microns
Output powder size Near Nano Size
Main Disc Speed 400 rpm
Max. Wt. of Powder in one Bowl 125 gm

Charges
 Usage of Equipment : Rs. 75 / hr
 Consultancy Charge : Rs. 200 / Day



SPECIMEN MOUNTING PRESS

Sample Size 30mm dia. x 40mm ht. (max.)

Charges
 Usage of Equipment : Rs. 100 / Sample



WEAR TESTING APPARATUS

Pin on disc range 100 N to 200 N
Wear disc dia up to 165 mm
Thickness up to 8 mm
Wear track dia 50 to 100 mm
Disc Speed 100 to 2000 rpm
Normal Load 5 to 200 N
Frictional Force 0 to 200 N
Wear range 0 to 2000 Micrometer

Charges
 Usage of Equipment : Rs. 350 / Sample
 Consultancy Charge : Rs. 300 / Day



IMAGE ANALYSIS SYSTEM

Trinocular metallurgical microscope 100x to 1000x
High Resolution
CCD Camera USB 3 MPXL
Image Acquisition Card Advanced Version Metallurgy Plus

Image Analysis Software

Sample Size 20 x 20 x 5mm

Charges
 Usage of Equipment : Rs. 500 / Sample with (5 images) specimen preparation
 Rs. 350 / Sample without specimen preparation

Consultancy Charge : Rs. 500 / Day

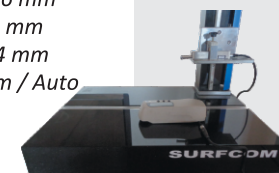


SURFACE ROUGHNESS TESTER

Model Handy surf E-35B
Traversing length 12.5 mm
Tracing speed 0.6 mm / s
Reserve speed 1 mm / s
Dimensions Width = 186 mm
 Depth = 68 mm
 Height = 54 mm

Measuring range 40 / 160 µm / Auto
Probing force 4 mN
Material of stylus Diamond
Radius of stylus 5 µm

Charges
 Usage of Equipment : Rs. 150 / Sample
 Consultancy Charge : Rs. 250 / Day



DOUBLE DISK POLISHING MACHINE

Charges
 Usage of Equipment : Rs. 100 / hr

