



**Rajiv Gandhi University of Knowledge Technologies  
(RGUKT - Nuzvid)**



***An Extract About the Lab Facilities***

**From the  
PLACEMENT BROCHURE  
DEPARTMENT OF  
METALLURGICAL & MATERIALS  
ENGINEERING  
2022-2023**

# Physical Metallurgical lab



TRINOCULAR  
METALLURGICAL  
MICROSCOPE



BELT GRINDER



CUTTING MACHINE



MOUNTING PRESS



LIECA MICROSCOPE



DUAL DISC POLISHER



AUTOMATIC MICROHARDNESS TEST



IMAGE ANALYSIS SYST+EM

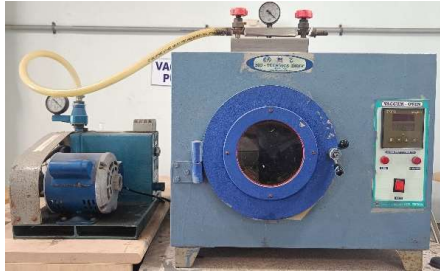


HIGH PRECISION LOW  
SPEED DIAMOND SAW

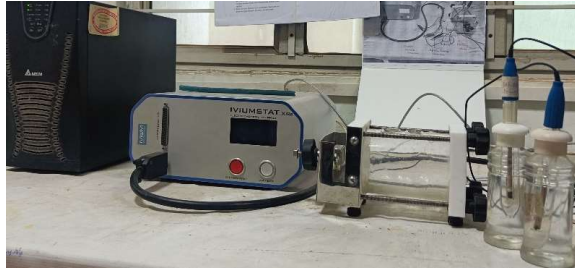


ELECTRO POLISHING ETCHING

# Corrosion Lab



VACUUM PUMP



ELECTROCHEMICAL WORK STATION



PERISTALTIC PUMP



WATER BATH



HIGH TEMPERATURE  
OXIDATION FURNACE  
(1350degree )



VACUUM OVEN



SALT SPRAY CHAMBER



DIGITAL TUBE FURNACE



OXIDATION FURNACE

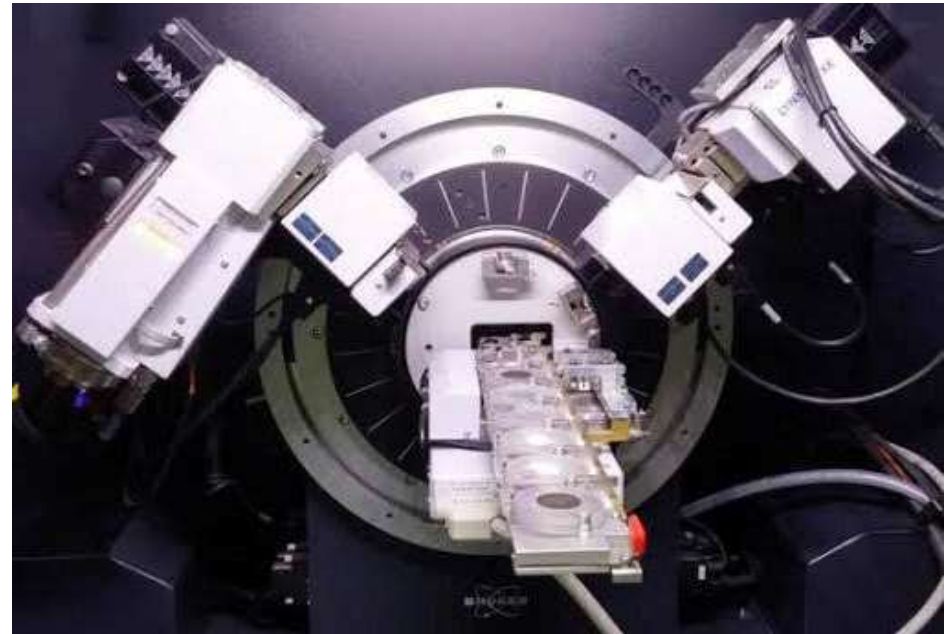


REGULATED DC POWER SUPPLY

## Material Characterization LAB

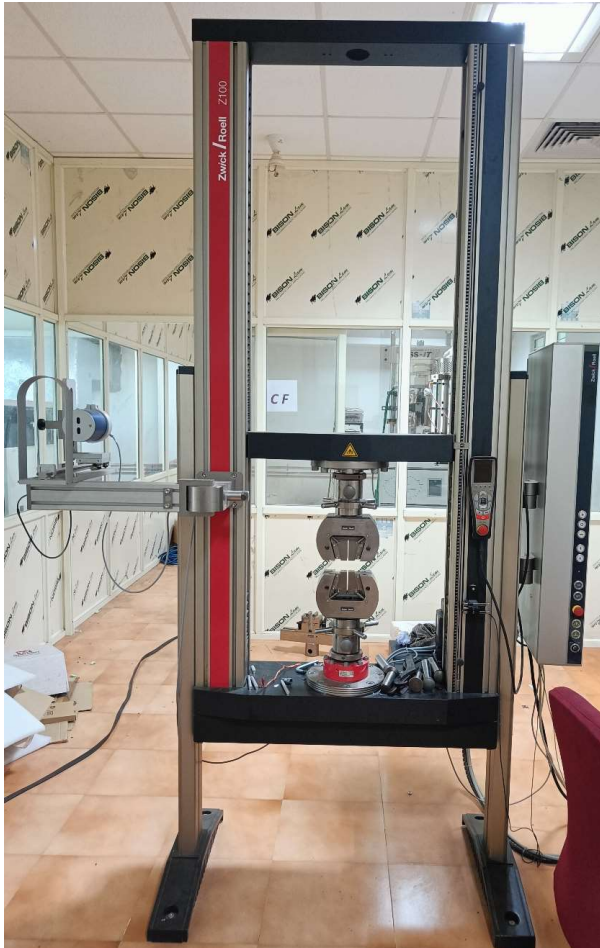


**FOCUS X-RAY DIFFRACTOMETER  
MODEL : BRUKER -D8 DISCOVER**



**THIN FILM ATTACHMENT**

## UNIVERSAL TESTING MACHINE



### MODEL ZWICK Z 100

- Maximum Testing Force 100 KN
- Temperature of test room upto 1200°C
- Initial Measurement length of extensometer 11-50 mm



## Field Emission Scanning Electron Microscope



# Phase Transformation & Heat Treatment Lab



High Temp Microwave Furnace



High Temp Sintering Furnace



Direct Heating Electrical Furnace



Electrically Heated Salt Furnace



Muffle Furnace



JOMINY END QUENCH HARDENABILITY TESTER



Tubular Furnace



Electric Oven

## Non Destructive & Testing Lab



### Da Vinci Alpha

Test Range : 2.5 mm  
to  
10 m

Velocity : 1000 m/s  
to  
15000 m/s



### Einstein -II DGS

Test Range : 10 mm  
to  
5 m

Velocity : 1000 m/s  
to  
9999m/s



### Da Vinci Delta

Test Range : 2.5 mm  
to  
10 m

Velocity : 1000 m/s  
to  
15000 m/s



### MIG Welding



## Material Testing lab



Single Level Type Creep Testing System

- 3 zone Furnace
- Capacity -50KN
- Temperature-1050
- Automatic Controller
- 3 phase AC, 230v

Rockwell Hardness Tester Impact Testing Machine

Brinell Hardness Tester Vickers Hardness Tester

## HIGH CYCLE FATIGUE TESTING SYSTEM



**Model GB5-600**

**Force** Three models including 50 kN  
(11,240 lbf), 100 kN  
(22,500lbf), 300kN(67,400 lbf)

**Temperature** Up to 900 C (1,650 F)

**Higher temperature version available (GB5-700)**



## LOW CYCLE FATIGUE TESTING SYSTEM



- Up to  $\pm 100$  kN (22,500 lbf) axial force capacity
- Patented Dynacell load cell features compensation for inertial loads caused by heavy grips and fixtures
- Standard or extra-height frame options Wide range of grips, fixtures, and accessories.

