

**S.D.M. COLLEGE OF ENGINEERING AND TECHNOLOGY, DHARWAD**

**DEPARTMENT OF CHEMICAL ENGINEERING**

**Infrastructure and Facilities**

1. Laboratories for UG program - 08

- Particulate Technology Laboratory
- Fluid Mechanics Laboratory
- Heat Transfer Laboratory
- Mass Transfer Laboratory
- Chemical Reaction Engineering Laboratory
- Environmental Engineering Laboratory
- Process Control Laboratory
- Chemical R & D Laboratory

2. Two UG class rooms, One Seminar Hall, Faculty rooms, Store room.

Sl. No	Rooms	Area (Sq. m)	Number	Facilities
1.	Class rooms 16 & 17	91.38	2	Black board, LCD, Wi-Fi, Curtains, & Desks
2.	Seminar hall	56.53	1	Black board, LCD, Wi-Fi, Curtains, Chairs & Desks
3.	Faculty rooms	76.80	8	Table, Chair, Cub-boards, Wi-Fi, Inter-come
4.	Laboratories	602	9	Black board, Inter-come, Wi-Fi, Chairs and desk, lab equipment's, safety measures (First Aid Kit)
5.	HOD Room with office	22.56+22.32	1	Table, chair, computer, printer, Wi-Fi, Cub-boards
6.	Computer Lab (P.Cad)	161.45	1	Wi-Fi, 30 Pcs
7.	Department Library	22.09		385 Books
8.	Software	-	-	Chemcad, CFD and C

## Laboratory Major Equipments,

Sl. No.	Name of the Laboratory	Name of the Important equipment
1	Particulate Technology Laboratory	1. Ball Mill, 2. Thickener/Clarifier, 3. Plate & Frame Filter, 4. Jaw Crusher, 5. Cyclone Separator, 6. Air elutriator, 7. Sieve shakers, 8. Vacuum leaf filter, 9. Drop weight crusher
2	Fluid Mechanics Laboratory	1. Reynolds Apparatus, 2. Reciprocating Pump Test Rig 3. Flow through Venturimeter /Orifice meter 4. Fluidized bed 5. Spiral coil 6. Pitot Tube Apparatus 7. Centrifugal Pump Test Rig. 8. Bernoulli's Apparatus.
3	Heat Transfer Laboratory	1. Mini Steam Generator 2. Double Pipe Heat Exchanger 3. Cross Flow Heat Exchanger 4. Agitated Vessel 5. Heat Transfer through Lagged Pipe 6. Emissivity Measurement Apparatus 7. Helical coil, 8. Unsteady state 9. Extended Surfaces 10. Thermal conductivity of liquids 11 Boltzmann apparatus.
4	Mass Transfer Laboratory	1. Cooling Tower 2. Vapor in Air Diffusion Apparatus 3. Wetted Wall Column 4. Vapor liquid equilibrium 5. Sieve Plate Distillation Column 6. Hydrodynamics of Packed Bed 7. Horizontal Rotary Shaker
5	Environmental Engg. Laboratory	1. Ion Analyzer with 04 electrodes 2. Bomb Calorimeter 3. Flame Photometer 4. K. F. Autotitrator 5. Turbidity Meter 6. M V. Titrator 7. C.O.D Digester 8. B.O.D. Incubator 9. Respirable Dust Sampler (Air Monitoring) 10. Stack velocity monitoring.

6	Chemical Engineering Reaction Laboratory	1.RTD Studies in PFTR 2.Isothermal Semi Batch Reactor 3.RTD Studies in CSTR 4. CSTR in Series 5.Adiabatic Batch Reactor 6.Packed bed non catalytic reactor 7.Continuous Stirred Tank Reactor,
7.	Process Control Laboratory	1.Control Valve Characteristics 2 I/P to P/I Converter 3.Temperature Control Trainer 4. 1 <sup>st</sup> order System 5.Temperature Measurement 6. Process Simulation +10 user
8.	Chemical R & D Laboratory	1.Incubator shaker 2.Peristaltic pump 3.UV spectrophotometer 4.Dissolved Oxygen meter 5.Air Compressor ELT 300HP 6.Autoclave 7.Laminar Air flow 8.Micro pipette 9.Micro Centrifuge 10.Draft Tube Spouted Bed Reactor 11.Online Water Analysis 12.Analytical Balance Make Shimadzu 13.Respirable Dust Sampler 14.Fine Particulate Sampler (PM10/2.5) 15.Gaseous Sampling Samper 16.Petrol engine 17.Exhaust gas analyzer

### Department Space details

Sl. No.	Name of Laboratory	Carpet Area (Sq.mt.)
1	Particulate Technology Lab	93.1
2	Heat Transfer Lab	102.62
3	Chemical R & D Lab	34.20
4	Mass Transfer Lab & Technical Analysis Lab	118.75
5	Chemical Engineering Reaction & Environmental Engg. Lab	118.75
6	Process Control Lab	43.70
7	Fluid Mechanics Lab	66.50
8	Store Room	25.00
	<b>TOTAL</b>	<b>602.62</b>