

# Library

OmDayal Group of Institutions established its library in the year 2010. The ODGI Library started functioning with a vision to serve the information needs of its users and it mainly holds books related to engineering, architecture and its allied subjects. Presently the library has a collection of over 13,000 Volumes comprising of text and reference books and also subscribing to more than 60 journals & periodicals housed in its Central and Architecture Libraries. Beside its rich collection, library provides NPTEL facility to access video lectures and DELNET access for resource sharing. A Digital library with 10 systems to access the E-Journals, E-books, CD/DVD's is also an important facet of the library and information center. All house-keeping operations are fully computerized through LSEase software which also provides OPAC access of library resources. Both the libraries consist of reading area, internet browsing terminals, reference section, open access periodical display and back-volume archives.

## **Vision:**

- To deliver full and easy access to the resources available to students, faculty members and staffs to enhance and encourage an in-depth teaching- learning experience
- To educate the library users about the facilities and services offered through the library and information center for their easeful use
- To ensure quality and dissemination of the resources available on or offline
- To maintain and preserve the ambience of knowledge
- To facilitate knowledge and resource sharing among users

## **Mission:**

The library is the heart of any institution and here in ODGI the library boasts of an infrastructure and facilities that ignite and motivate the young minds into achieving greater heights. The Library and Information Center of the college runs with the mission of taking the institution to a level of technical excellence through timely and smart dissemination of the knowledge required for the students to inculcate the skills essential for a globally competent personality. The Library and Information Center also aims at boosting the research and developmental activities undertaken by the faculty members and others associated with the institution.

## **Resources at a glance:**

Total No of Volumes	13,258
Total No of Titles	2686
Journals & Periodicals	55
Back Issues	2291
CD / DVDs collection	587
NPTEL Courses (A/V Lectures)	560
BIS codes (Print)	270
Project / Thesis Reports	75
E-Books	310
Daily News Papers	4
Total No of Volumes	13,258



## Computer center

### **About**

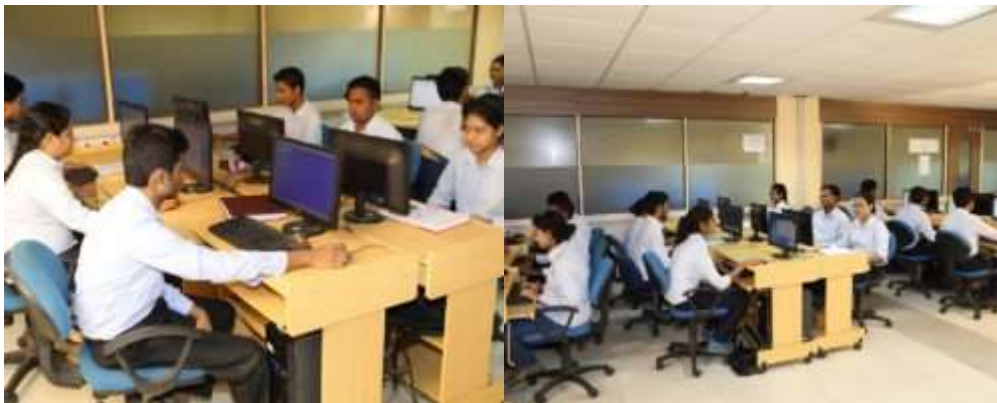
The Computer Center of OmDayal Group of Institutions has 60 PCs used for Internet Browsing and Basic Computing.

### **Objectives**

- Availability of computers after class hours.
- Availability of internet after class hours.
- Availability of computers with high end configuration.

### **Functions**

Computer Center is located in the ground floor of main building and consists of two computer laboratories. All PCs are connected to LAN. They are also connected to internet. LCD projector is available in Computer Center. Faculties and technical assistants assist students in Computer Center.



## Sports facilities

Games and sports are an integral part of a student's life. A student should study hard to be successful in competitive examinations. But, he should also play games and sports to enjoy the health and vigour of life.

Along with bookish learning, a student should spend his time on games and sports. There are many people who give importance only to bookish knowledge. Indeed, there is often no provision for games at all.

In the OmDayal Group of Institutions, education of boys and girls is no longer confined to the lecture-theatres alone. Monotony of lectures has been very much minimized by out-door work and participation in games and sports and various athletic feats, which generate healthy competitive spirit and interest in life among students.

There are many benefits of games and sports in education. Outdoor games such as football, cricket, badminton, tennis, etc. have many benefits. The participation in any one of them is not a fruitless or frivolous pursuit. They may not ensure any immediate gain. They may tell upon the health for the time being and may also affect education temporarily. But the outdoor games gradually build up a healthy body and make the mind energetic.



# **Laboratories under Civil Engineering Department**

## **1) Soil Mechanics Lab –**

### **Major Equipments:**

<b>Sl. No.</b>	<b>Equipment' Name</b>	<b>No.</b>
1	Soil hydrometer	1
2	Liquid limit device (Cassagrande Type)	1
3	Plastic limit apparatus	1
4	Shrinkage limit apparatus	1 set
5	Curt cutter apparatus with Dolly	1
6	Sand pouring cylinder	1
7	Direct shear apparatus	1
8	Triaxial shear apparatus	1
9	Vane shear apparatus	1
10	Permeability apparatus	2
11	Air tight container	12
12	Consolidation Apparatus	1
13	Proctor Compaction Mould with accessories	1 Set
14	Hot Air Oven	1
15	Unconfined compression tester	1
16	Electronic weighing balance	2
17	Relative density apparatus (Pycnometer)	1

## 2) Concrete Technology Lab –

### Major Equipments:

Sl. No.	Equipment' Name	No.
1	Slump test Apparatus	1
2	Compaction factor test Apparatus	1
3	Laboratory Concrete mixture	1
4	Cube mould	5
5	Cylindrical mould	2
6	Le Chatelier mould	2Set
7	Le Chatelier flask	1
8	Gauging trowel	2
9	Measuring cylinder 1000 ml	2
10	Vicat needle apparatus	1
11	Water bath (650*300*175)	1
12	Vee - bee Consistometer.	1
13	Motorised Sieve shaker	1
14	Compressive Strength test apparatus.	1
15	Test sieve 90 micron dia. For Cement Test	1
16	Cleaning Brush	1
17	Digital balance (50 kg capacity & 10kg capacity)	1+1
18	Pycnometer	1
19	Enamel tray	4
20	Sieve set size 80,40,20,12.5,10, 5 (30cm dia)	1each
21	Sieve set size 4.75,2.36, 1.18, 600,300, 150 micron (15 cm dia brush made)	6 set
22	150 mm Dia brush made Pan and Lead for Sieve sets	1 set

23	Blain Air permeability Apparatus	1 set
24	Specific Gravity Apparatus for Course Aggregate	1
25	Schmidt Rebound Hammer	1
26	Bulk Density Measuring Apparatus (3 ltr& 15 ltr)	1+ 1
27	Thermostatically Controlled Laboratory Curing Tank	1

### Highway Engineering Lab –

#### Major Equipments:

Sl.No.	Equipment' Name	No.
1	Los angle abrasion testing machine	1
2	Aggregate impact testing machine	1
3	Ring & ball apparatus	1
4	CBR Test Apparatus	1
5	Universal Penetrometer for Bitumen	1
6	Flash and Fire point apparatus (Pensky Martine Open Cup Type)	1
7	Benkelman's Beam Apparatus	1
8	Dynamic Cone Penetration Apparatus	1
9	Dynamic Film stripping device	1

10	Length gauge	1
11	Thickness gauge	1
12	Electronic weighing machine	1

### Environmental Engineering Lab –

#### Major Equipments:

Sl.No.	Equipment' Name	No.
1	Jar testing apparatus	1
2	Digital Turbidity Meter	1
3	Digital ph Meter	1
4	Vacuum Pump	1
5	Steam bath Apparatus	1
6	Distilled Water Plant	1
7	Hot Air Oven	1
8	Analytical Balance	1
9	Electronic balance	1
10	Conical flask & volumetric flask	5 + 20
11	Measuring cylinder	2
12	Desiccators with porcelain plate	2
13	Beaker 500ml capacity	8
14	Reagent bottle with stopper	25
15	Pipette Graduated type	40
16	Burette	10

## Engineering Geology Lab –

### Major Equipments:

Sl. No.	Equipment' Name	No.
1	Digital Binocular Microscope	1
2	Polarizing Petrological Microscope	1
3	MotiCam Digital Camera & Analytical software	1
4	Moh's Scale Hardness Kit Box	1 set
5	Clinometer Compass	1
6	Various collections of Geological Models	6 set
7	Projector and Computer.	1 set

## Surveying Laboratory –

### Major Equipments:

Sl. No.	Equipment' Name	No.
1	Metric Chain (30mtr)	5
2	Metric Chain (20mtr)	3
3	Metric Tape (30 meter)	4
4	Steel Tape (10 meter)	1
5	Ranging Rod (dia 30mm)	15
6	Arrows	15
7	Optical Square	4
8	Prismatic Compass	6
9	Plane Table with stand accessories	6



10	Dumpy level with stand	5
11	Auto level	3
12	Vernier Theodolite (20 second)	6
13	Total Station (Digital SOKKIA 620K) with accessories	1

### **CAD/STAAD Laboratory –**

#### **Major Equipments:**

- 1) LCD Projector
- 2) Printer
- 3) Laptop
- 4) 30 No. of Computers equipped with industry standard CAD & STAAD software

## **Laboratories under Mechanical Engineering Department**

<b>Name of the Laboratory</b>	<b>Apparatus/Equipments/Instruments/Softwares</b>
<b>Fluid Mechanics and Hydraulics Lab</b>	Centrifugal Pump Francis Turbine Pitot Tube Orifice & Venturimeter Bernoulli's Theorem Major Loss in pipe flow Notch Apparatus Pelton Wheel Turbine Reynold's Apparatus Centrifugal Blower Compressor Test Rig Metacentric Height
<b>Applied Fluid Mechanics Lab</b>	Minor Losses in Pipe Flow Cavitation Phenomenon

	<p>Hydraulic Jump</p> <p>Pump in series and Parallel</p> <p>Submerged Jet</p> <p>Stokes' Law verification</p>
<b>Applied Thermodynamics and Heat Transfer Lab</b>	<p>Conductivity of Metal Rod</p> <p>Heat Exchanger</p> <p>Pin Fin Apparatus</p> <p>Conductivity of Insulating Powder</p> <p>Emissivity Apparatus</p> <p>Separating and Throttling Calorimeter (Boiler)</p>
<b>I.C. Engine Lab</b>	<p>4 stroke Petrol Engine with More's Test</p> <p>Bomb Calorimeter</p> <p>4 stroke Diesel Engine</p> <p>MPFI Engine with E.C.U</p> <p>Catalytic converter</p> <p>Cut section model of Diesel Engine</p>
<b>Applied Mechanics Lab</b>	<p>Rockwell Hardness Tester</p> <p>Universal Testing Machine</p> <p>Spring Testing Machine</p> <p>Torsion Testing machine</p> <p>Impact testing Machine</p> <p>Fatigue Testing Machine</p> <p>Strain Gauge</p> <p>Friction Testing Machine</p>
<b>Dynamics of Machine Lab</b>	<p>Gyroscope</p> <p>Governor</p> <p>Static &amp; Dynamic Balancing</p> <p>Cam</p> <p>Vibration Apparatus</p>
<b>Material Testing Lab</b>	<p>Disc Polishing Machine</p> <p>Microscope</p> <p>D.P Test Kit</p>

	Magnetic Flux Test Apparatus
<b>Metrology &amp; Measurement Lab</b>	Vernier Height Gauge Vernier Depth Gauge Thread Gauge Outside Micrometer Radius Gauge Feeler Gauge Slip Gauge(Gr- I, 87 Pcs) Dial Indicator (0-10mm) Dial Indicator Stand Screw Pitch Gauge Universal Bevel Protractor Sine Bar Angle Gauge V-Block Surface Roughness Tester Profile Projector Thermocouple Anemometer
<b>Manufacturing Technology Lab</b>	Grain Fineness Testing M/C Moisture Tester Permeability Meter Sand Rammer Mould Hardness Tester Clay Washer Universal Sand Testing M/C Digital Balance MIG Welding Set up Spot Welding Set up Aluminium Melting Furnace Forging Furnace Anvil Swage Block

	<p>Forging Tools</p> <p>Foundry Set up</p> <p>Arc Welding Set</p>
<b>Air conditioning &amp; Refrigeration Lab</b>	<p>Air condition Test Rig</p> <p>Window type Air conditioning</p> <p>Air conditioning Trainer - Bypass Factor &amp; Humidification – Dehumidification</p>
<b>Advanced Manufacturing Lab</b>	<p>C.N.C Turning Machine</p>
<b>Machining and Machine Tools Lab</b>	<p>Lathe</p> <p>Milling Machine</p> <p>Shaper Machine</p> <p>Grinding Machine</p> <p>Radial Drilling Machine</p> <p>Hydraulic Hacksaw</p> <p>Tool-maker microscope</p>
<b>Workshop</b>	<p>Combi-Planer</p> <p>Belt and Disc Planer</p> <p>Professional Planer</p> <p>Bench Vice</p> <p>Carpentry Vice</p> <p>Marble Cutter</p> <p>Circular Saw</p> <p>Tree Drilling Machine</p> <p>Various Fitting and Pattern Making Hand Tools</p>
<b>Drawing Lab</b>	<p>Drawing Table - 30 Nos</p>
<b>CAD Lab</b>	<p>Computer – 30 Nos</p> <p>Softwares Available: AUTOCAD &amp; CREO</p>

# **Laboratories under Electrical Engineering Department**

## **Electrical Machines Lab**

- Study of the characteristics of a separately excited D.C generator
- Studies of the characteristics of a D.C shunt motor.
- Speed control of a D.C motor.
- Study of the equivalent circuit of a single-phase transformer.
- Polarity test on single phase transforms and study of the different connections of three-phase transformer

## **Circuit Theory & Networks Lab**

- Transient response of R-L and R-C Network : Simulation using PSPICE / hardware
- Transient response of R-L-C series and parallel circuits: Simulation with PSPICE / hardware.
- Determination of Impedance (Z) and Admittance (Y) parameters of two port network: Simulation / hardware.
- Frequency response of LP and HP filters: Simulation / hardware, Frequency response of BP and BR filters: simulation / hardware
- Generation of Periodic, Exponential, Sinusoidal, Damped sinusoidal, Step, Impulse, Ramp signal using MATLAB in both discrete and analog form.
- Determination of Lap lace transform and Inverse Lap lace transform using MATLAB. 8. Amplitude and Phase spectrum analysis of different signals using MATLAB.

## **Analog Electronic Circuits Lab**

- Study of characteristics curves of B.J.T & F.E.T.
- Construction of a two-stage R-C coupled amplifier & study of it's gain & Bandwidth.
- Study of class A & class B power amplifiers. Study of class C & Push-Pull amplifiers.
- Realization of current mirror & level shifter circuit using Operational Amplifiers.
- Study of timer circuit using NE555 & configuration for Monostable & Astable multi vibrator.
- Construction & study of Bistable multi vibrator using NE555.
- Realization of a V-to-I & I-to-V converter using Op-Amps. Realization of a Phase Locked Loop using Voltage Controlled Oscillator (VCO)
- Study of D.A.C & A.D.C.

# **Laboratories under Computer Science & Engineering Department**

## **Programming Lab:**

### Hardware:

30 Desktop, 1 Printer, 1 Switch, All Desktops Connected to LAN and High Speed Internet.

### Software:

Windows, Linux, C, C++, Java, Python.

## **DBMS & Artificial Intelligence Lab:**

### Hardware:

30 Desktop, 1 Printer, 1 Switch, All Desktops Connected to LAN and High Speed Internet.

Software:

Windows, Linux, Oracle, JSP, Prolog.

**Networking Lab:**

Hardware:

30 Desktop, 1 Printer, 1 Switch, All Desktops Connected to LAN and High Speed Internet.

Software:

Windows, Linux, Java, Net Sim software academic version 2.0 \_\_

**Operating systems lab**

Hardware:

30 Desktop, 1 Printer, 1 Switch, All Desktops Connected to LAN and High Speed Internet.

Software:

Microsoft Windows 2007, Microsoft Windows 2008 Server, Borland C++, Red hat Linux 7,  
Cyberoam Firewall

**Digital Electronics & Computer Organization Lab:**

Hardware:

10 Digital Electronic Trainer Kit, 1 Analog and Digital IC tester, 12 Power Supplies.

Software: Xilins Software

**Seminar Room:**

Hardware:

1 Desktop connected to LAN and High Speed Internet, Projector, Speaker.

Software:

Windows, Adobe Acrobat Reader, Microsoft Word, Excel, and PowerPoint.