



FACILITIES FOR CONSULTANCY

DEPARTMENT OF CIVIL ENGINEERING,
JAWAHARLAL NEHRU GOVT. ENGINEERING COLLEGE
SUNDERNAGAR, DISTT. MANDI H.P.

CONCRETE LAB



S. No	Major Equipments	Tests which can be performed	Target Agency/organization which can conduct tests
1.	Universal Testing Machine	Tensile, compression, bending tests on samples of cement, concrete, steel, bricks, etc.	PWD, NHAI, Any Govt./Pvt. Companies involved in Construction
2.	Compression Testing Machine	Direct compression and split tensile strength on samples of cement concrete, bricks, etc.	
3.	Vee-Bee Consistometer	Workability tests on fresh concrete	
4.	Slump Test	Workability tests on fresh concrete	
5.	Compaction Factor Test	Workability tests on fresh concrete	
6.	V-Funnel Apparatus	Workability tests on fresh concrete	
7.	Digital Rebound Hammer	Non-Destructive Testing of components of structures	
8.	Ultrasonic Pulse Velocity Tester	Non-Destructive Testing of components of structures	
9.	Flexure Testing Machine	Flexure test on samples of concrete	
10.	Vicat & Le – Chateleir Apparatus	Setting time, consistency, soundness of cement	
11.	Permeability Apparatus	Permeability of samples of concrete	
12.	Tensile Strength Testing Machine	Tensile strength of cement samples	

GEOTECHNICAL ENGINEERING LAB



S.No.	Major Equipments	Tests which can be performed	Target Agency/organization which can conduct tests
1.	Relative Density Apparatus	Relative density test	PWD, NHAI, Any Govt./Pvt. Companies involved in Construction
2.	Triaxial Test Apparatus	Shear strength test	
3.	Direct Shear Apparatus	Shear strength test	
4.	Liquid Limit Apparatus	Liquid limit test	
5.	Consolidometer	Consolidation test	
6.	Permeameter	Permeability test	
7.	Pycnometer	Specific gravity test	
8.	Universal Automatic Compactor	Compaction test	
9.	Motorised Load Frame	Unconfined compression test, California bearing ratio test	
10.	Sieve Set	Grain size analysis	
11.	Proctor Compaction apparatus	Proctor compaction test	
12.	Sand Pouring Cylinder	In situ density	
13.	Specific Gravity Bottle	Specific gravity test	

HIGHWAY ENGINEERING LAB



S.No.	Major Equipments	Tests which can be performed	Target Agency/organization which can conduct tests
1	California Bearing Ratio Machine	Bearing Ratio of Soil	PWD, Any Government and Private Construction Companies
2	Ductility Testing Machine	Ductility of Bitumen And Its Suitability For Road Construction	
3	Los Angeles (L.A.) Abrasion Test	Abrasion Testing of Abrasive Solid Materials.	
4	Stripping Value Test	To Ascertain The Suitability of The Two Materials Viz. Bitumen (Binder) and Aggregates	
5	Humidity Chamber	Durability of Different Soil Samples	
6	Ring And Ball Apparatus	Softening Point of Bitumen, Waxes, LDPE, HDPE/PP Blend Granules, Rosin and Solid Hydrocarbon Resins	
7	Specific Gravity	Specific Gravity of Aggregates	

ENVIRONMENTAL ENGINEERING LAB



S.No.	Major Equipments	Tests which can be performed	Target Agency/organization which can conduct tests
1	UV-Vis Spectrophotometer	Physical & Chemical Parameters of water & wastewater	IPH, Govt. /Private Organizations related to Water Quality Testing
2	Water Quality Kit		
3	Turbidimeter		
4	Portable Colorimeter		
5	Chlorine Test Kit		
6	BOD Apparatus		
7	COD Digestion Reactor		
8	Research Grade pH/ORP & EC/TDS meter		
9	Research Grade DO/BOD meter		
10	MPN Bacteriological Kit	Bacteriological Test	

ROCK MECHANICS AND ENGINEERING GEOLOGY LAB



S.No.	Major Equipments	Tests which can be performed	Target Agency/organization which can conduct tests
1	Rock Toughness Tester	Toughness of Rock	PWD Any Govt./Pvt. Companies involved in Construction
2	Rock Permeability Apparatus	Permeability of Rock	
3	Automatic Compression Testing Machine 2000 Kn	Compression tests on samples of rock, cement, concrete, bricks, etc.	
4	Cutting And Polishing Machine	Cutting And Polishing of rock sample	
5	Rock Bolt Pull Out Test Apparatus	Rock Bolt Pull Out	
6	Brazilian Test Apparatus	Brazilian Test	

SURVEYING LAB



S.No.	Major Equipments	Tests which can be performed	Target Agency/organization which can conduct tests
1	DGPS	Data collection from field	PWD, IPH,NHAI, Any Govt./Pvt. Companies involved in Construction
2	TOTAL STATION	Data collection from field	
3	GPS	Data collection from field	
4	Digital Auto level	Data collection from field	

SOFTWARE LAB



S.No.	Major Equipments	Tests which can be performed	Target Agency/organization which can conduct tests
1	STAAD-PRO-Connect edition	All types of structures design starting from concrete, steel to aluminum, timber and even piping design. Both static and dynamic analysis can also be performed	PWD, PWD (Highway wing), IPH & Any Govt./Pvt. Companies involved in Construction
2	Open roads-Connect edition	MX Road is an excellent string-based modelling tool that enables the rapid and accurate design of all types of roads. Individuals such as civil engineers, designers, surveyors, system designers can access 3D modelling, construction driven engineering, and other analysis all in one engineering application.	
3	Water gems, sewer gems-connect edition	To model, & analyse water supply network & sewer network	
4	ATENA 5.1	Non-linear analysis of reinforced concrete structures.	