

Datta Meghe College of Engineering

Department of Civil Engineering

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Testing, Consultancy and Industry Interaction

About the Institute

Datta Meghe College of Engineering was established in 1988 to promote professional education and prepare the students for leadership in their profession and society. The institute is affiliated to the University of Mumbai and approved by the All India Council for Technical Education (AICTE) and recognized by DTE. It is also an ISO certified institute. The institute boasts of having one of the largest intake of students at U. G. level in the University of Mumbai. The institute conducts undergraduate courses namely- Civil Engineering, Electronics Engineering, Computer Engineering, Mechanical Engineering, Chemical Engineering and Information Technology and PG programmes in Civil (Structural Engineering), Computer Engineering, Mechanical Engineering (CAD-CAM and Robotics) , Electronics & Telecommunication Engineering. The institute is the recognized Research Center in University of Mumbai for Ph.D (Technology) programmes in Civil, Computer and Mechanical Engineering disciplines.

About Department of Civil Engineering

Department of Civil Engineering is the oldest department in the Institute established in 1988. Being the oldest in the Institute, the department has encouraged and prepared students for academic and industrial needs. Academic activities are enriched by frequent field visits, projects, seminars and workshops.

Many students of final year have been securing the positions in the University merit list. Most of the students are placed in reputed construction companies and consultancy firms in and around Mumbai.

Nine laboratories of the department related to Civil Engineering and a computational laboratory has been standardized as per the norms specified by BIS and is well equipped with the state of the art equipments/ instruments and machineries. The department actively runs Testing and Consultancy Cell and is proud to be associated with several projects of national importance in and around Mumbai. The department prepares the students for leadership in the profession of Civil Engineering.

Laboratory and Testing Facilities

The department always remains in the forefront owing to R&D, planning, design, construction and consultancy services. It also has well equipped laboratories with all modern equipments in the specialized areas to cater to the needs of students as well as R&D and consultancy work. State of the art testing facilities related to Civil Engineering are provided in these laboratories to fulfill the need of industries, external agencies as well. The faculty members of the department have expertise in carrying out the necessary testing and consultancy services.

Test on Cement /Concrete

- Mix Design of concrete for varieties of works.
- Compressive strength of concrete cubes and solid/hollow blocks, bricks etc.
- Concrete air permeability.
- Specific gravity, normal consistency and Setting time of cement, Soundness of cement
- Workability of concrete using flow table as well as slump test, Flexural strength of harden concrete.
- Non-destructive testing.

Material Testing

- Compressive strength, water absorption and efflorescence of bricks. Compressive and flexural strength of timber and ceramic/roofing tiles
- Tensile strength, percentage elongation, weight and other properties of Mild and TOR steel
- Fineness modulus, crushing and impact values, flakiness and elongation indices, abrasion and water absorption of coarse aggregates.
- · Fineness modulus, silt content and bulking of the fine aggregates.

Soil investigation

- Index properties, grain size distribution, standard and modified compaction characteristics.
- Shear strength parameters, permeability values, consolidation characteristics. California Bearing ratio (CBR) value and determination of safe bearing capacity (SBC) etc.
- Soil investigation report with recommendations.

Test on Highway Materials

- Flash and fire point of bitumen, Ductility of bitumen.
- Quantification of percentage of bitumen used in road construction, Measurement of resistance to plastic flow.
- Bitumen consistency testing, Viscosity testing
- Crushing strength f aggregates.

Water Quality Analysis

- General drinking water quality parameters (total dissolved solids, pH, Hardness, Chlorides, fluorides, sulphates, Dissolved Oxygen (DO), Residual Chlorine, Chlorine demand, Iron etc)
- Waste water and industrial effluent analysis such as solid, dissolved oxygen, Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Relative Stability Test, Trace elements etc.
- Design of water supply and sanitary systems for villages and towns, Rain water harvesting- Analysis and design.
- Identification of rocks, ground water exploration etc.

And we also undertake

- Surveying works including mapping and preparation of layout plan, contour maps and earthwork estimation.
- Analysis, design and drawing of all Civil Engineering substructures and superstructures.
- Estimation, costing and valuation of Proposed and existing structures.
- Third party inspection for all types of infrastructural works sanctioned under various heads executed by different Government agencies such as Municipal authorities, PWD, Irrigation Department, MIDC, CIDCO, MMRDA etc.

For Testing, Consultancy and R&D Works/Needs contact:

The Head

Department of Civil Engineering

DATTA MEGHE COLLEGE OF ENGINEERING

(An ISO: 9001-2008 Certified Institution)

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