Department of Civil Engineering

JUNE 2016-JUNE 2017







www.glbitm.org



- *Vision & Mission * Program Educational Objectives *Program Outcomes *Laboratory Facilities *Science and Engineering Fair * Guest Lectures *Industrial visit
- * Expert Interaction

<u>DEPARTMENT OF CIVIL ENGINEERING</u>

The department of Civil Engineering came into existence in the year 2011. Being the youngest department of institute, it has grown tremendously over the years and is now recognized as one of the major engineering department in terms of quality education with an inclination towards innovation. The department has produced Civil Engineering professionals with sound technical knowledge, desire for higher studies, research and with above all, sense of serving the society.

The Department has developed strong links with professional institutions, construction industries and academicians of premier institutes in the country. Besides adopting high quality teaching learning process at Under Graduate level, the department is also involved in consultancy services and exploring innovative projects catering to the need of the hour.

Vision & Mission

To become a department, that produces technically competent and innovation oriented Civil Engineering Professionals having social cognizance

Mission

In order to realize the vision, the Department of Civil Engineering has resorted to focusing on attitude, knowledge and skill development, through:

M-1 Orienting lectures and practical sessions to develop complete understanding of analysis, design and constructional aspects of Civil Engineering works.

M-2 Creating an educational environment in which the students could imbibe confidence to handle successfully major projects and bottlenecks in course of civil construction works.

M-3 Providing platform for dissemination of innovative ideas, knowledge and experience of civil engineering professionals through seminar and field training

M-4 Generating awareness & ability among the students to plan and implement a self - sustaining project without causing any threat to safety, health & environment

Program Educational Objectives (PEOs)

PEO-1 Our graduates will be able to apply & utilize their understanding of the theories & principles of civil engineering in multidisciplinary environment.

PEO-2 Our graduates will be able to develop their professional skills to handle major and complex projects considering the environmental & social impact.

PEO-3 Our graduates will be able to innovate, design & contribute towards providing affordable civil engineering solutions related to the real life problems.

PEO-4 Our graduates will grow as an individual with high ethical & moral standards so that they could prove to be an asset to the organization they serve.

Program Outcomes

PO-1 Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and civil engineering specialization for the solution of complex engineering problems.

PO-2 Problem analysis: Identify, formulate, research literature, and analyze complex civil engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO-3 Design/development of solutions: Design solutions for complex civil engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.

PO-4 Conduct investigations of complex problems: Use research based knowledge and research methods including design of experiment, analysis and interpretation of data, and synthesis of the information to provide valid conclusion.

PO-5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex civil engineering activities, with an understanding of the limitations.

PO-6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional Civil engineering practice.

PO-7 Environment and sustainability: Understand the impact of the professional Civil engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO-8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the Civil engineering practice.

PO-9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO-10 Communication: Communicate effectively on complex Civil engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO-11 Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage civil projects and in multidisciplinary environments.

PO-12 Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Objectives (PSOs)

PSO-1 An ability to apply standard practices and planning strategies for execution of civil engineering works

PSO-2 Design and development of the civil engineering components using analytical, experimental and software skills.

LABORATORY FACILITIES

Transportation Engineering Laboratories

- Aggregate Impact Testing Machine
- Aggregate Crushing Testing Machine
- Los Angles Abrasion Testing Machine
- Ring And Ball Apparatus With Thermometer
- Flash and fire point test apparatus
- Elongation and Flakiness Index
- Stripping value of bitumen
- Ductility of bitumen
- Penetrometer

Geotechnical Engineering Laboratories

- Cassagrande's Apparatus
- Proctor Mould Test (Light)
- Relative Density Test Apparatus
- Direct Shear Test Apparatus
- Auger Boring
- Permeability Test Apparatus

Surveying and Geo-informatics Laboratories

- Total Station
- Dumpy Level
- Auto Level
- Theodolite
- Prismatic Compass With Stand
- Distometer

Environment Engineering Laboratories

- Water Testing Kit
- Turbidity Meter Digital
- PH Meter
- TDS Meter Digital
- BOD Incubator
- COD Digestion

Structure Analysis Laboratories

- Curved Member Apparatus
- Three Hinged and Two Hinged Arch Apparatus
- Column and Strut Apparatus
- Elastic Properties of Deflected Beam Apparatus
- Unsymmetrical Apparatus

Computational Laboratories

• Computer Systems With Auto-CAD Installed

Construction Material Testing Laboratories

- Vicat Apparatus IS: 5513-1976
- Le-Chatelier Test Apparatus
- Other Material Testing Apparatus

Fluid Mechanics & Hydraulic Machines Laboratory

- Impact of Jet Apparatus
- Orifice and mouthpiece Apparatus
- Orificemeter and Venturimeter Apparatus
- Reynolds number apparatus
- Bendmeter Apparatus
- Electrical Analogy Method Apparatus
- Pitot tube Apparatus
- Boundary Layer Apparatus
- Metacentric Height Apparatus
- Sudden Enlargement and Contraction & Pipe Friction Apparatus
- Tilting Plume Apparatus
- Pelton Turbine
- Francis Turbine
- Kaplan Turbine

10 Feb 2017

Science & Engineering Fair

Students were participated in Science & Engineering Fair 2017 at National Science Centre, Delhi.



21 Jan 2017

Guest lecture on Innovative & Non- Conventional Construction of Bridges

Guest lecture were organized for Civil Engineering Students to know and learn about innovated and non-conventional ideas for the construction of bridges. Expert Mr. Alok Pandey was affiliated to Elegant Construction Company.



7 Oct 2016

Guest lecture on Rainwater Harvesting-A Smart Technology

Guest lecture was organized on different techniques of Rainwater Harvesting. The resource person was Dr. D Chakraborty affiliated to CGWB, Force & Asian Paints Ltd.



09 Apr 2016

Industrial Visit to Brick Manufacturing Unit

Industrial visit was organized to the Brick manufacturing Plant situated in Greater Noida.



05 Mar 2016

Industrial Visit to Sewage Treatment Plant

Industrial visit to Sewage Treatment Plant were organized for the students situated at New Ashok Nagar, Delhi. Students were able to understand the various units of treatment plant and designing and functioning of Sewage Treatment Plant.



15 Feb 2016

Expert Interaction on Entrepreneurship and small Business Development

National Institute for Entrepreneurship and small Business Development

Affiliation: Ministry of Skill Development & Entrepreneurship, Government of India



Patron

Dr. RAM KISHORE AGARWAL (Chairman)

Mr.PANKAJAGARWAL (Více-Chaírman)

Dr. RAJEEV AGARWAL (Director)

Mr. ANIL KUMAR YADAV (H.O.D)

Edítor

MS. PARUL RAWAT

(ASSISTANT PROFESSOR)

www.glbitm.org