

WELCOME TO THE DEPARTMENT OF

## Civil and Environmental Engineering (CEE)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)

## DEPARTMENTS OF CIVIL & ENVIRONMENTAL ENGINEERING

**PROGRAMMES** IN

**BACHELOR OF SCIENCE IN CIVIL ENGINEERING** 

2008

M.SC. / M.ENG. IN CIVIL **ENGINEERING** 

2012 2018

**PHD IN CIVIL ENGINEERING** 

#### BACHELOR OF SCIENCE IN CIVIL ENGINEERING



## B.SC. PROGRAMME OF CEE IS BAETE ACCREDITED

Board of Accreditation for Engineering and Technical Education (BAETE) is the highest body in Bangladesh that provides accreditation to a Program that is offered by an institution



**IEB MEMBERSHIP** 

Graduates are eligible for IEB Membership



**GRADE A** 

Achieved the highest grade in first attempt



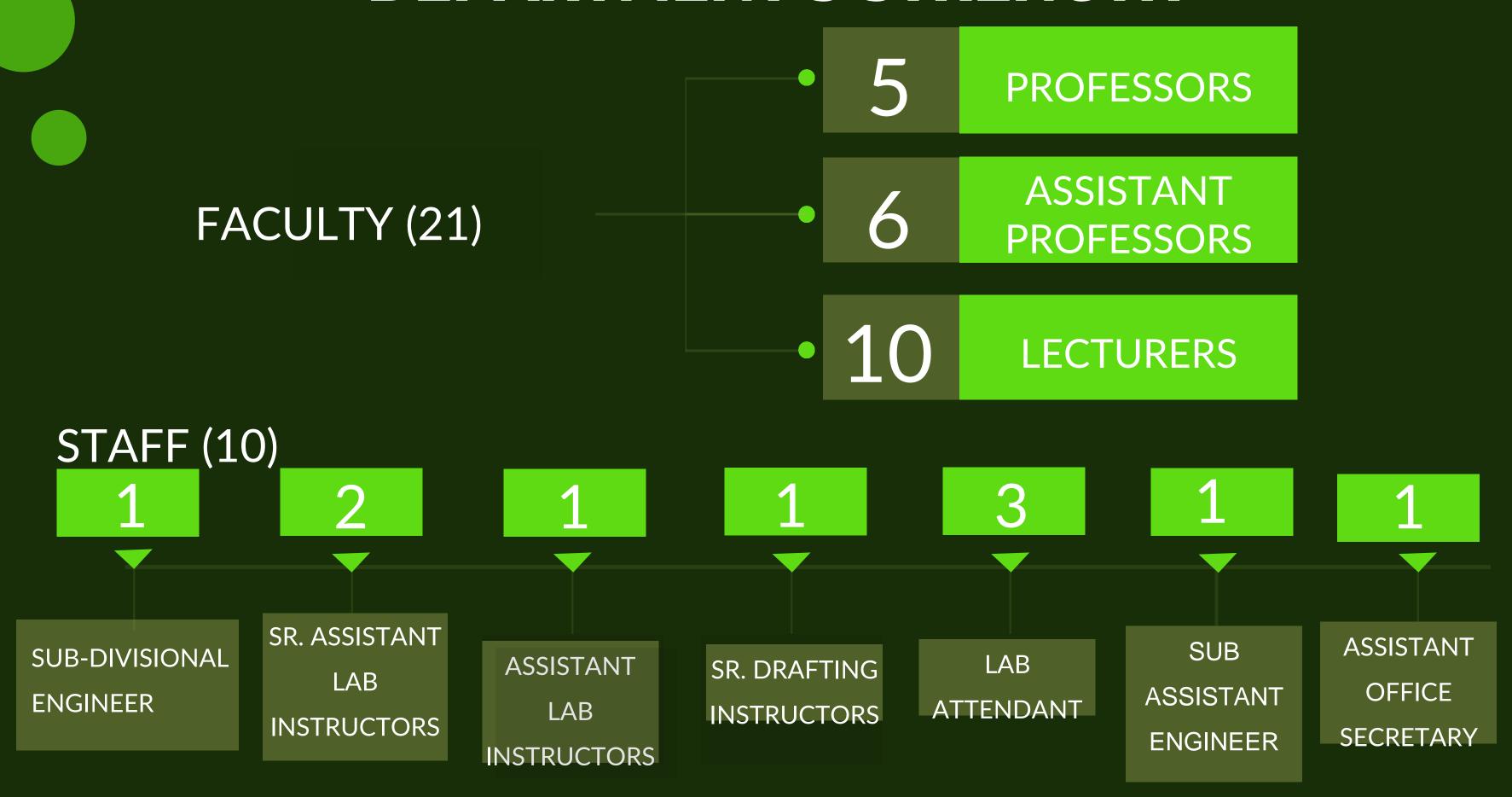
INTRODUCED OBE
CURRICULUM
Planning to apply for
BAETE Accreditation
under Outcome Based
Education

## PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

Graduates are expected to acquire and demonstrate these attributes down to <u>four years</u> of graduation. Our Civil Engineering graduates will:

PEO	Elaborated version
PEO 1: Practice Sustainable Engineering	PEO1: Have high-level expertise in mathematical, scientific, and engineering principles to develop solutions for complex engineering problems
PEO 2: Advanced Education and Research	PEO2: Have adequate knowledge to pursue advanced engineering studies for professional growth leading to certifications, professional licenses, and advanced academic degrees.
PEO 3: Leadership, Communication, and Innovation	PEO3: Possess outstanding leadership abilities, effective communication and be innovative in planning, designing and managing civil engineering projects.
PEO 4: Social and Ethical Standards	PEO4: Practice in civil engineering fields with due consideration to society, environment, sustainability, and ethical norms.

#### **DEPARTMENT'S STRENGTH**



## PROFESSORS' PROFILE

#### Dr. Hossain Md. Shahin

**Professor and Head** 





- PhD (Nagoya Institute of Technology, Japan)
- M.Sc.(Nagoya Institute of Technology, Japan)
- B.Sc. (Bangladesh University of Engineering and Technology)



- Tunneling
- Constitutive model of soils
- Bearing capacity of shallow and deep foundations
- Liquefaction and Ground improvement problems
- Ground settlement problems
- Geotechnical site investigation
- Land reclamation and embankment problems
- Soil structure interaction

## PANEL OF EXPERTS

- Padma Multipurpose Bridge Project
- Karnaphuli Tunnel Project
- Dhaka Subway Project
- Dhaka-Ashulia Elevated Expressway Project
- BBA Master Plan

#### Dr. Md. Rezaul Karim





- PhD (Yamaguchi University Yamaguchi, Japan)
- M.Sc. (Bangladesh University of Engineering and Technology)
- B.Sc. (Bangladesh University of Engineering and Technology)



- Water and wastewater management
- Water Resources Management
- Water treatment analysis and process design
- Drinking water quality modeling
- Solar Water Distillation and Solar Disinfection
- Sustainable Management of Municipal Solid Waste
- Feasibility and Reliability of Rainwater Harvesting in Rural and Urban Areas
- Health risk assessment
- Sanitation and Risk Assessment
- Environmental Impact Assessment

## Dr. Md. Tarek Uddin, PEng.





- PhD (Tokyo Institute of Technology, Japan)
- M.Sc. (Asian Institute of Technology, Thailand)
- B.Sc. (Bangladesh University of Engineering and Technology)



- Durability of concrete
- Recycling of demolished concrete as aggregate
- Sustainability of concrete structures in severe environment
- Repair and strengthening of concrete structures
- Mechanical performance of deteriorated concrete structures
- Corrosion of steel bars in concrete due to carbonation and chlorides
- Behavior of deteriorated concrete structures under dynamic loadings
- Light-weight aggregates etc.

## Dr. Shakil Mohammad Rifaat



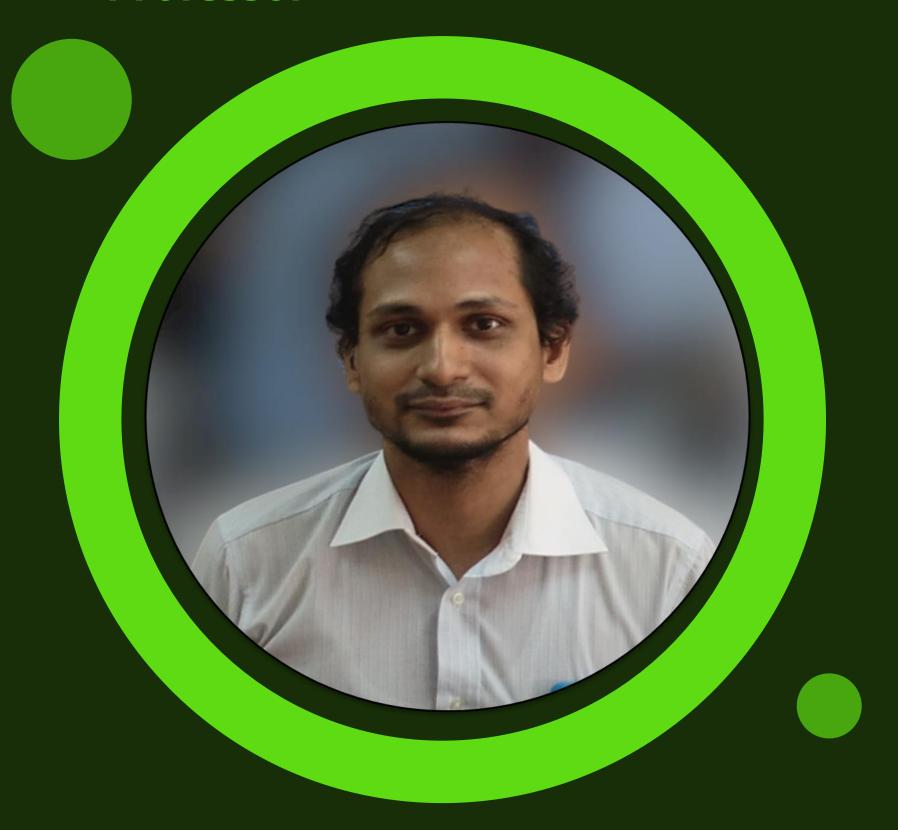


- PhD (University of Calgary, Canada)
- M.Sc. (National University of Singapore)
- B.Sc. (Bangladesh University of Engineering and Technology)



- Traffic Safety
- Transportation Planning
- Econometric Modeling
- Transportation Data Analysis

## Moinul Hossain, PhD





- PhD (Tokyo Institute of Technology, Japan)
- M.Engg.(Tokyo Institute of Technology, Japan)
- M.Engg.(Asian Institute of Technology, Thailand)
- B.Sc. (Bangladesh University of Engineering and Technology)



- Intelligent Transportation Systems
- Application of Artificial Intelligence in Transportation Engineering
- Travel Demand Forecasting
- Road Safety

## ASSISTANT PROFESSORS' PROFILE

## Dr. Nazmus Sakib





- Ph.D. (The University of Texas at Austin, USA)
- M.Sc. (The University of Texas at Austin, USA);
- B.Sc. Eng. (BUET)



- Asphalt technology
- Pavement materials

#### Dr. Amimul Ahsan



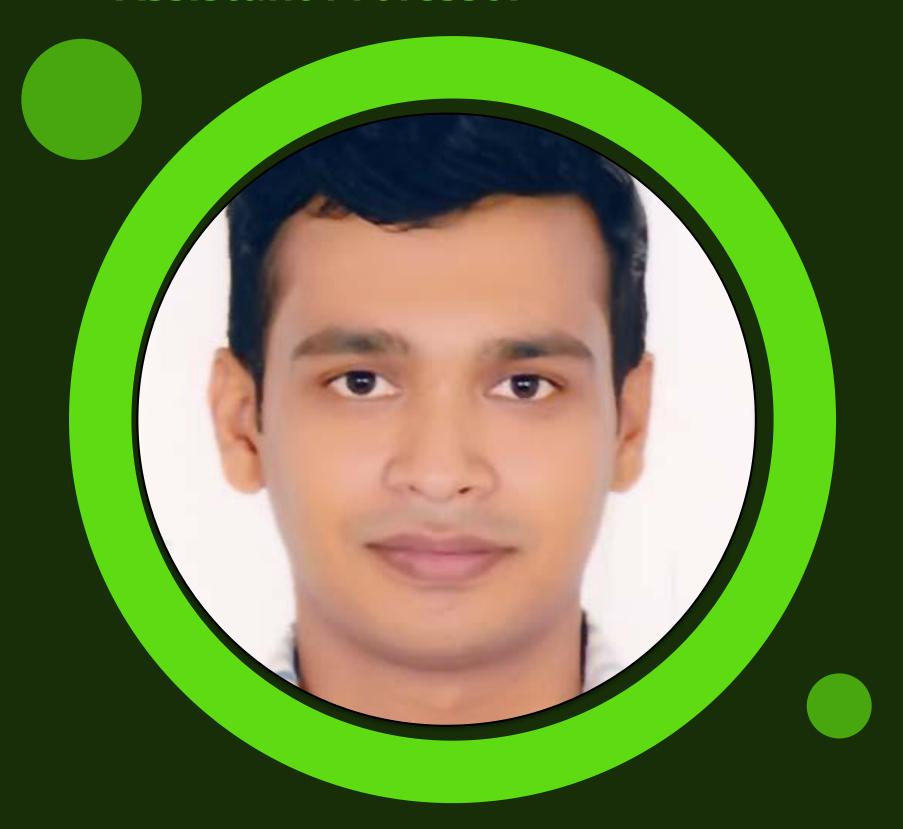


- Ph.D. (University of Fukui, Japan)
- M.Sc. Engg. (KUET)
- B.Sc. Engg. (KUET)



- Saline/Surface water treatment.
- Solar Water Distillation.
- Rainwater Harvesting, Modernization & Implementation in Arid and Coastal Area
- Environmental Impact and Risk Assessment.
- Solid Waste Management

## Dr. Imran Kabir





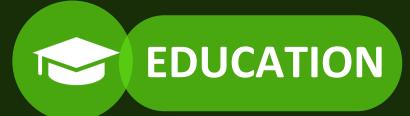
- Ph.D. (University of New South Wales, Australia)
- M.Sc. (Concordia University, Canada)
- B.Sc. Engg. (BUET)



- Finite Element Modeling
- High Strength Steel
- Stability of Structure
- Composite Structure

#### Dr. Tanvir Ahmed





- Ph.D. (The University of Western Australia, Australia)
- M.Sc. (IUT)
- B.Sc. Engg. (IUT)



- Ultra-high performance concrete (UHPC)
- Sustainable construction materials
- Construction management

## Mohammad Zunaied-Bin-Harun





- M.Sc. (IUT)
- B.Sc. Engg. (IUT)



- Sustainable Construction Materials
- Durability of construction Material
- Structural Engineering

## Md. Habibur Rahman Bejoy Khan





- M.Sc. (IUT)
- B.Sc. Engg. (IUT)



- Water Quality
- SODIS
- Environmental Modelling

## LECTURERS' PROFILE







- M.Sc. (IUT) (Ongoing)
- B.Sc. (IUT)



Environmental Engineering



**K.B.M Ibrahim** 



- M.Sc. (IUT) (Ongoing)
- B.Sc. (IUT)



Transportation Engineering



**Niaz Ahmed** 



- M.Sc. (IUT) (Ongoing)
- B.Sc. (IUT)



Transportation Engineering



Farhan Anjum Badhon



**EDUCATION** 

- M.Sc. (IUT) (Ongoing)
- B.Sc. (IUT)



• Structural Engineering



#### Anika Tahsin Nabila



- M.Sc. (BUET) (Ongoing)
- B.Sc. (IUT)



• Environmental Engineering



**Mahnaz Faiza** 



- M.Sc. (IUT) (Ongoing)
- B.Sc. (IUT)



Transportation Engineering



Maisha Hossain



- M.Sc. (IUT) (Ongoing)
- B.Sc. (IUT)



Transportation Engineering



#### **Mohammad Abu Umama**



- M.Sc. (IUT) (Ongoing)
- B.Sc. (IUT)



Geotechnical Engineering



Md. Noor Tushar



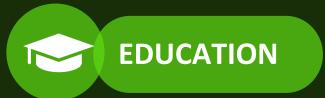
- M.Sc. (BUET) (Ongoing)
- B.Sc. (BUET)



- Earthquake Engineering
- Structural Dynamics



#### **Syed Rafiuzzaman**



- M.Sc. (BUET) (Ongoing)
- B.Sc. (BUET)



- Concrete
- Building Materials

## FACULTIES ON LEAVE

#### Ijaj Mahmud Chowdhury

PhD (Ongoing, McMaster University, Ontario, Canada); M.Sc. (IUT); B.Sc. Engg. (IUT)

#### **Istiakur Rahman**

PhD (Ongoing, University of Arkansas, USA); M.Sc. (BUET); B.Sc. Engg. (IUT)

#### Farnia Nayar Parshi

Ph.D. (Ongoing, BUET); M.Sc. (BUET); B.Sc. Engg. (BUET)

#### Mr. Md. Asif Hasan Anik

PhD (Ongoing, Dalhousie University, Canada); MASc. (Dalhousie University, Canada); B.Sc. Engg. (IUT)

#### Samia Syeoti Ramim

PhD (Ongoing, University of British Columbia, Vancouver, Canada); M.Sc. (BUET); B.Sc. Engg. (BUET)

#### Zihan Mahmood Nahian

PhD (Ongoing, Florida State University); M.Sc. (IUT); B.Sc. Engg. (IUT)

#### **Daud Nabi Hridoy**

PhD (Ongoing, Howard University, USA); B.Sc. Engg. (IUT)

#### **Mozaher Ul Kabir**

PhD (Ongoing, Kansas State University, USA); M.Sc. (BUET); B.Sc. Engg. (IUT)

#### Nafisa Islam

PhD (Ongoing, University of North Carolina, USA); M.Sc. (BUET); B.Sc. Engg. (BUET)

#### Musaddik Hossain

PhD (Ongoing, Georgia Institute of Technology, USA); B.Sc. Engg. (IUT)

## STAFF PROFILE



Md. Emran Khan Sub-Divisional Engineer



Md. Nizam Uddin Sr. Asst. Lab Instructor



Hossain
Asst. Lab Instructor



Md. Riaz Uddin Asst. Drafting Instructor



Md. Mahmudunnabi Tareq Asstt.Lab Instructor



Md. Sayeed Hasan Asst. Secretary, IUT-CEE.



Md. Yousup Ali Sub Assistant Engineer



Md. Yea Baten Khan Lab Attendant



Md. Al Amin Sheikh Lab Attendant



Md. Shahinur Hossain Lab Attendant





## LABORATORY AND TESTING SERVICES

- Environmental Engineering Laboratory
- Concrete and structural Testing Laboratory
- Geotechnical Engineering Lab
- Transportation Laboratory
- Hydraulic Laboratory

# ENVIRONMENTAL ENGINEERING & HYDRAULICS LAB

- Detailed analysis of potable water and wastewater in terms of physical, chemical, and microbiological parameters.
- Research of hydraulic and hydrotechnical problems of water structures like dam, water retaining structure.





# ENVIRONMENTAL ENGINEERING & HYDRAULICS LAB



Microscope (Model: Zeiss Primo Star)



Flow Channel



Jar Test Apparatus

- Hands on experience about the testing of various construction materials available in the market
- Hydraulic powered Universal Testing Machine (UTM) is used to investigate the flexure and shear behavior of beams and tensile and compressive strength of concrete made with different materials







Scanning Electron Microscope



Los Angeles Machine



Universal Testing Machine (UTM)



**Carbonation Chamber** 



Crushing machine (5000 KN)



Cylinder Testing Machine



**Corrosion Monitor** 



Temperature and humidity controlled salt water spray chamber



Rapid Chloride Penetration Test (RCPT)
Apparatus



Air Content Test Apparatus

## GEOTECHNICAL ENGINEERING LAB

- Soil Tests such as classification, compaction, relative density, unconfined compression, permeability, direct shear, Triaxial and consolidation
- Supports Field boring, testing and sample collection



## GEOTECHNICAL

ENGINEEDINGLAR



**Triaxial Test Apparatus** 



**Direct Shear Testing Equipment** 

# GEOTECHNICAL ENGINEERING LAB



Temperature and humidity controlled salt water spray chamber



Casagrande apparatus



**Equipments** 

#### TRANSPORTATION LAB

- Testing of different road construction materials,
- Micro simulation and Macro simulation lab





ESRI's ArcGIS for working with maps and geographic information

Simulation of Urban Mobility





**Bentley Cube** 



Microscopic Traffic Simulation

### TRANSPORTATION LAB



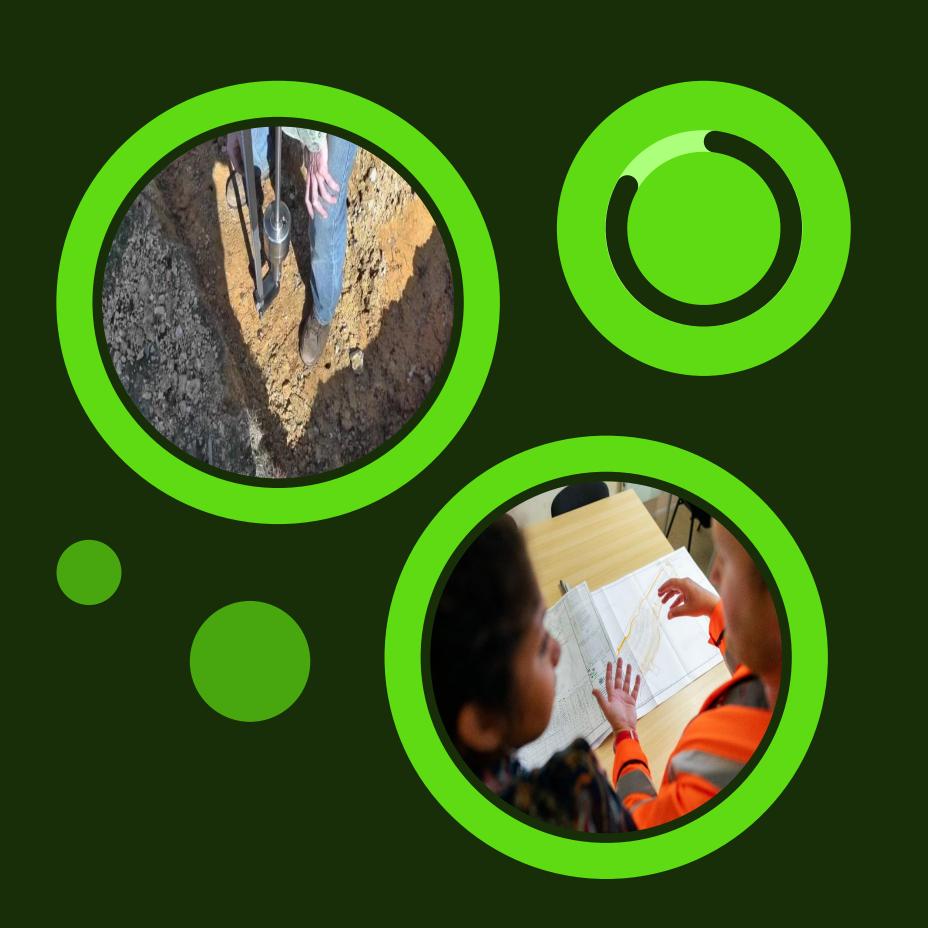




Los Angeles Machine

**CBR-Marshal Tester** 

**Proctor Automatic Universal** 

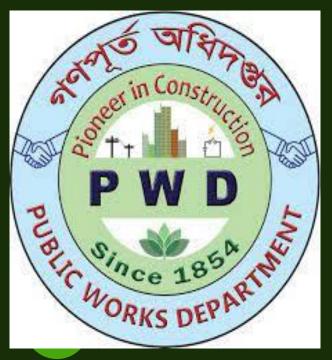


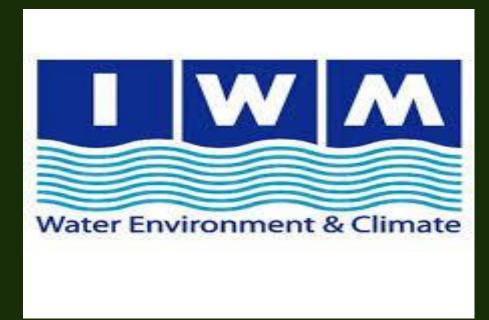
# COMMERCIAL TESTING AND CONSULTANCY SERVICES

Department of CEE has done numerous projects under Testing and Consultancy Services. This allows the department to maintain a regular interaction with industries through different commercial services.











## INDUSTRIAL TRAINING PROGRAMME

**3 WEEKS** INTENSIVE TRAINING PROGRAMME IN DIFFERENT FIELDS OF CIVIL ENGINEERING.

#### **EXTRA-CURRICULAR ACTIVITIES**

AMERICAN CONCRETE INSTITUTE IUT

STUDENT CHAPTER

INSTITUTE OF TRANSPORTATION
ENGINEERS (ITE) IUT STUDENT CHAPTER

CENNOVATION

**IUT DEBATING SOCIETY** 

IUT PHOTOGRAPHY
SOCIETY

IUT CAREER AND
BUSINESS SOCIETY

SOCIETY FOR ISLAMIC KNOWLEDGE SEEKERS



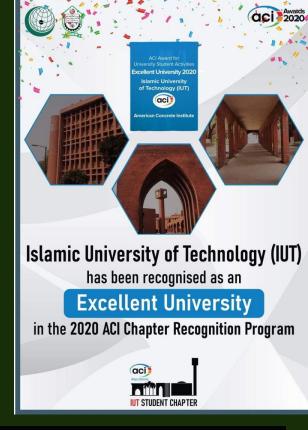














### **EVENTS AND FESTIVALS**

- Seminar/Workshops
- Conference
- Short Course
- Cennovation









### EVENTS AND FESTIVALS

- Seminar/Workshops
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