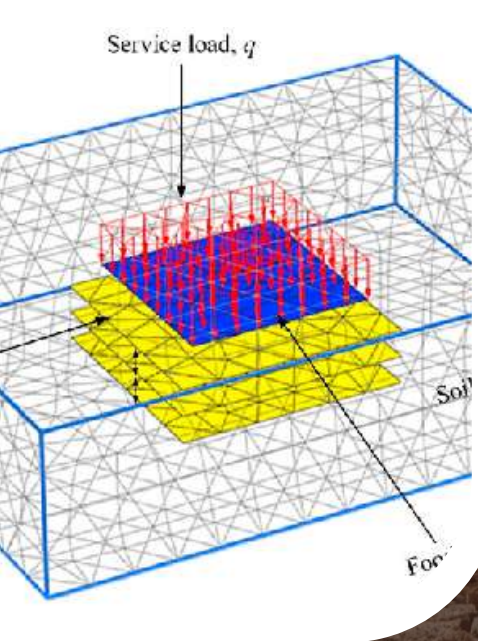
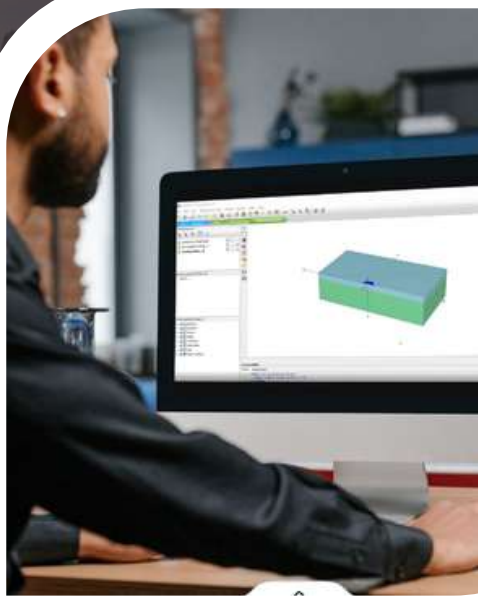
PLAXIS 2D SOFTWARE TRAINING PROGRAM

SYLLABUS

Live Certification Hands-On-Training Program by Top Industry Professional in Geotechnical Design Field





+91 9510-752-409
www.pigsolearning.com
info@pigsolearning.com
101, GISC Building,
Navrangpura, Ahmedabad

ABOUT US

A Note from Our Founder

At **PIGSO LEARNING**, our mission is to bridge the gap between academic knowledge and industry demands through personalized, expert-led engineering education. Unlike generic platforms, we tailor every program to your goals—whether you're a student, a researcher, or a working professional. Our team of industry and academic experts delivers hands-on, project-based training using leading tools like Abaqus, Ansys, Tekla, PLAXIS, RS2, and more.

We're proud to have empowered over 5000 learners from 60+ countries, maintaining a 4.8/5.0 average rating across 25+ specialized programs. Our approach has enabled participants, including PhD scholars and industry professionals, to achieve real-world project success and advance their careers.

Join PIGSO LEARNING and experience the difference that practical skills, personal mentorship, and a global community can make in your engineering journey."

Mayank Panchal
Founder & Director, PIGSO LEARNING

TESTIMONIAL

"PLAXIS 2D WIth PIGSO LEARNING"

It was really a very nice experience with PIGSO LEARNING. Team is very cooperative and the very knowledgeable resource person so as the great learning experience. The conduction of course is really very smooth and well planned.

4.6

GAURI MHETAR, INDIA

- **GEOTECHNICAL ENGINEER**

"Highly beneficial in enhancing my understanding of soil-structure interaction"

I recently completed PLAXIS training to upskill in geotechnical design. The course was highly beneficial in enhancing my understanding of soil-structure interaction, advanced modeling techniques, and practical applications in real-world projects. As someone working in the design field, this training has significantly improved my efficiency and precision in analyzing complex geotechnical problems. A worthwhile investment for professional growth

Google Reviews

HARISH MADUPURI, INDIA

- **GEOTECHNICAL ENGINEER**

Trustpilot
Rated 4.8/5.0

Google Reviews
Rated 4.8/5.0

TESTIMONIAL

"Provided clear explanations and allocated extra time.

It was a wonderful platform to enhance skills in the field of research. I really appreciate the organizer, who is providing the utmost benefits to new learners. The training program provided clear explanations and allocated extra time.

4.6

SUMIT KUMAR, INDIA

- **GEOTECHNICAL ENGINEER**

"Excellent Training"

I enrolled in Plaxis. Useful course for the Geotechnical and Structural Engineers. The instructor has a vase technical knowledge of the subject, usually it is difficult to find in other institutes. The topics taught were also according to the industry standards.

4.6

HASAN, UAE

- **GEOTECHNICAL STUDENT**

Trustpilot
Rated 4.8/5.0

Google Reviews
Rated 4.8/5.0

TESTIMONIAL

"Excellent and well-structured"

The online PLAXIS 2D course was excellent and well-structured. The instructors provided clear explanations, and the practical exercises were valuable for hands-on learning. The course successfully balanced theoretical concepts with practical applications. I highly recommend it for engineers seeking to develop their geotechnical modeling skills."

4.6

ABUZER MOHAMMED ELSIDDG ELBOR (FARIS), SAUDI ARABIA

- **GEOTECHNICAL ENGINEER**

"Happy to be a part of the PIGSO family and grateful for the opportunity"

Plaxis is an important software for geotechnical engineers, but learning it can be challenging due to its complexity and limited availability of resources. However, the introduction of online classes has made it possible for engineers from different States to connect and learn from each other.
This not only allows for the exchange of ideas and methods, but also provides an opportunity to view recorded lectures multiple times for better understanding and clarification of doubts. I am happy to be a part of the PIGSO family and grateful for the opportunity to learn and share knowledge with others.

Google Reviews

MAHESWARI, INDIA

- **GEOTECHNICAL STUDENT (PHD)**

Trustpilot
Rated 4.8/5.0

Google Reviews
Rated 4.8/5.0

LEARNER'S

"Empowering over 5000+ aspiring engineers, research scholars, and professionals across 60+ countries with cutting-edge skills and knowledge."

BENIFITS

- **Live interactive sessions** for real-time learning by Industry professionals.
- **Certificate of Excellence** upon successful completion of the program.
- **Live Q&A sessions** to clarify doubts and enhance your understanding.
- **Over 25 hours** of comprehensive video lessons for in-depth knowledge.
- **Hands-On Learning** – Real geotechnical project exercises - not just theory.
- **1-Year Full Content Access:** Revisit all recordings and materials anytime, anywhere.
- **5 project assignments** for different modules.
- **1 Capstone Industry type project**
- **Global Network** – Connect with 5,000+ engineers across 49+ countries worldwide.

ELIGIBILITY

Our comprehensive hands-on PLAXIS training programs are designed for a wide range of learners involved in geotechnical engineering, including:

- **Geotechnical Engineering Students**
- **Research Scholars**
- **Professional Engineers**
- **Academicians and Professors**
- **Freelancers and Consultants**

No prior experience with PLAXIS is required, but a basic understanding of soil mechanics and geotechnical principles will help you maximize the benefits of the course.

EDUCATOR

Dr. D.K.Malviya : A PLAXIS Software Expert

Specialises in: PLAXIS 2D and 3D | Pile Foundations | Slope Stability | Offshore Geotechnics | Tunnel Analysis

PhD in Geotechnical Engineering from **CSIR**-Central Building Research Institute (CBRI) Roorkee with a thesis focused on piled raft foundation behaviour under combined loading conditions using physical 1g model testing and PLAXIS finite element analysis. M.Tech thesis also centred on pile-reinforced slopes using PLAXIS — giving him exceptionally deep practical expertise in geotechnical software applied to real research problems.

International research exposure includes a Summer School at Shanghai Jiao Tong University, **China** and Winter Internship at **IIT Kanpur**. **Published 12 research paper**s including 5 SCI/SCIE papers in high-impact journals — Ocean Engineering (IF 4.6), Environmental Development and Sustainability (IF 4.7), and Geomechanics and Engineering (IF 2.5).

Recipient of the Summer School **Excellent Student Award from Shanghai Jiao Tong University, DFI India Research Award Finalist**, Best Paper Award at **Indian Geotechnical Conference**, and international travel grant from **SERB**, Government of India.

EDUCATOR

Mr. Rahul: A PLAXIS Software Expert

Specialises in: Pile Foundations | Ground Improvement | Diaphragm Walls | Retaining Structures | Liquefaction Analysis | Metro Rail Geotechnics

One of PIGSO Learning's most experienced industry practitioners with over **25 years of hands-on geotechnical engineering** across construction, consulting, and academia. Former Deputy Manager at ITD Cementation India Limited — one of India's largest geotechnical and infrastructure contractors — where he led technical work on pile foundations, diaphragm walls, ground improvement, metro rail projects, and retaining structures across India and internationally, including **Germany, Malaysia, and Dubai.**

Has delivered geotechnical solutions for landmark projects including **Delhi Metro, Jaipur Metro, IOCL Paradip Refinery, Vedanta Aluminium Plant, and multiple PSU** and infrastructure developments. Currently running an independent consultancy and serving as Professor of Geotechnical Engineering, bringing real project experience directly into the classroom.

PhD in ANN-based computational modelling for soil shear strength. Joint Secretary, Indian Geotechnical Society — Amravati Chapter. Key Person, NHAI Infracon.

SYLLABUS

Intoduction to FEA (Finite Element Analysis)

Introduction

- Finite Element Method Basics
- Applicability of Plaxis 2D
- Modeling Aspects- Plain Strain & Axisymmetric

Input Procedure

- Geometry, Material, Mesh Generation
- Boundary Condition, Initial Static Conditions
- Construction stages and Calculation
- Report Generation

Apply Now

SYLLABUS

Module - 2 - Material Models

Basics- Stress, Strain, Effective Stress, Initial Stresses

Mohr-Coulomb Model

- Mohr-Coulomb Model
- Elastic perfectly-plastic behavior
- Basic Parameters of Mohr-Coulomb Model

Hardening Soil Model

- Hardening Soil Model
- Approximation of Hyperbola by Hardening-Soil model
- Parameters of the Hardening Soil Model

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SYLLABUS

Module - 3 Deformation by Shallow & Deep foundations

Modelling and Analysis of Shallow Foundations

- Basics of Shallow Foundation
- Settlement of circular footing on sand: Rigid foundation
- Force distributions and bending moment in the foundations during loading

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Modelling and Analysis of Pile Foundations

- Basics of Pile Foundation
- Modelling and analysis of Bored Pile
- Settlement of pile foundations in heterogeneous soil conditions
- Axial force and bending moments in pile foundations during loading

1. Project Assignment - Shallow Foundation

Apply Now

SYLLABUS

Module - 4 Deformations in Slops & Retaining structures

Modelling and Analysis of Embankment

- Basics of Embankment
- Deformation and Stress countours in embankment slope
- Stability analysis of embankment (FoS)

Modelling and Analysis of Retaining Wall

- Basics of Retaining Wall & Shoring System
- Submerged Construction of excavation
- Assessment of shear force, axial force, and bending moment in the retaining wall

Apply Now

SYLLABUS

Module - 4 Deformations in Slops & Retaining structures

Modelling and Analysis of Slope with Remedial Measures

- Possible Remedial measures for slope stabilization
- Node-to-node anchor and embedded beam approach for modelling
- Comparison of sability assessment (FoS)

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2. Project Assignment on Slope Stability

3. Project Assignment on Diaphragm Wall Modeling

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SYLLABUS

Module - 5 Hoek Brown Model

Hoek Brown Model

- Basics of the Hoek Brown Model
- Parameters of the Hoek Brown Model
- Application of the Hoek Brown model for dynamic analysis

Module - 6 Stabilization of Rock Slopes

Stabilization of Rock Slopes

- Basics of Rock slope stabilizations
- Modelling the faults using Discontinuity
- Determination of the factor of safety and ensuring long-term stability

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SYLLABUS

Module - 7 Groundwater Flow Modeling

- Close flow Boundary formation
- Flow field modeling for Dry excavation

Module - 8 Consolidation

- Basics of the Stone column in relation to consolidations
- Stone column Design and analysis
- Force distribution and settlement assessment

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Module - 9 Dynamic, Vibration & Seismic Analysis

- Generator foundation on elastic foundation
- Pile driving
- Building subjected to earthquake

Doubt Solving Session

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CONTACT US

We’re ready to assist you with your enrollment in this training program.

F-62, Bandhan Arcade, Modasa - 383315

info@pigsolearning.com

www.pigsolearning.com

+91 9510752409 | +91 8200154790