

POST GRADUATE PROGRAMME IN APPLIED CONSTRUCTION MANAGMENT

PGPACM

6 months Internationally accredited Training Program

Civil Engineer/ Architects

Confused about your Future?

Transform yourselves into Skilled Engineers & Prospective Managers by learning the required skills in Construction



For Admission & inquiries

Contact on: 040-66251111, 7207650288, 8121904524 Email: mail@edgescom.in | Web: www.edgescom.in



Confused? What to do after B.E/B.Tech/M.Tech/B.Arch

Your one stop solution for Construction Management Training





Course Description

This comprehensive course program provides students with advanced skills and technical knowledge in construction management. Individuals pursuing the course also develop the leadership skills needed to manage and direct complex construction projects. This the innovative program aims to develop the broad competencies needed by today's well rounded Construction Managers/Engineers by offering a variety of courses related to Estimation & Costing, Contracts Management, Project Management, and Building Information Modeling (BIM).



Course Objective

To impart a Civil engineer / Architect the best Construction
Management skills, thereby equipping them to face the challenges
of the modern construction world.

Key benefits of doing PGPACM @ EDGE-SCOM

- A global skills shortage in construction.
- Plenty of job opportunities with higher pay.
- Lucrative career path.
- Improved employability.
- No need to do a Masters Degree at Universities
- Flexible study schedule
- This Construction Management course meets employers' needs.
- Gain a wide range of knowledge and transferable skills.
- Classes will be conducted by reputed and renowned Faculties with proven track record.
- You will receive the highest possible quality of teaching.





Course Curriculum

The training of professionals as part of the Construction Management program focuses on the following areas: project management, construction management, contracts management, construction quality, safety and equipment management, supply chain management of construction projects, modern construction materials and technologies, computer applications in construction (MS Project, Primavera), and building information modelling (BIM) for the construction industry.

Core Topics in Construction Management Course:

- Introduction To Construction Management
- Quantity Surveying, Estimating And Bidding Procedures
- Construction Contracts & Construction Law
- Construction Scheduling
- Construction Cost Planning & Control
- Project Monitoring For Quality Control And Safety
- Dispute Resolution Techniques In Construction
- Procurement Management
- Innovation In The Construction Industry
- Risk Management



Upon completing the course students will be able to:



- Define and describe construction processes and various engineering roles involved
- Describe, interpret, and differentiate between project delivery systems in construction projects; Select and justify contract types for each project delivery system.
- Explain and develop work breakdown structures
- Identify and develop work packages and activities
- Describe, explain, and compare various scheduling techniques
- Develop construction plans and schedules
- Calculate and synthesize construction estimates
- Describe the materials management process
- Identify construction safety hazards and corresponding solutions
 Categorize construction operations, equipment, and materials; and Develop, integrate
- and apply construction operations and processes models.
- Identify the different Design stages in a Project
- Develop Reporting procedures such as Monthly Report,
 Quality Records, QA/QC Reports, MIS, Inspection reports, Write & Explain Minutes of
- Meetings, progress charts, and presentations.
- Understand BIM Basics & the Benefits.
- Describe how BIM can be used as a communication and collaboration tool, and its contributions to Scheduling, Estimating, and Facility Management.
- Explain the process of implementing BIM and how BIM-based designs for Structural, Mechanical, Electrical, Plumbing, fit into the overall Construction Document fabric.





Students in final year of graduation or who have completed graduation in Civil Engineering Technology from recognized University / Institution Architects preferably with 2 years experience are also eligible to do this course

Duration

Its a 6 months Programme with classes from Monday to Saturday.
Classes usually will be for 3-4 hours everyday including theory and lab practice.

Entrance Exam



Eligible applicants have to undergo the entrance examination .which is mainly personal interview.

Aim is not only to judge academic competency to go for higher studies but also overall development, attitude, family background, English proficiency, health, achievements in life and approach towards further career. Seats are limited to 20 per batch and management reserves every right to postpone or cancel the admission of the candidate if criteria is not met or batch strength has exceeded its capacity.

Programme Fees



Fees Can be paid in 3 installments. 40% of the total fee should be paid at the time of admission. 30% after one month of admission and remaining 30% after three months of admission



TARGET JOBS AFTER COMPELETION **OF COURSE**







COST CONTROLLER

PLANNING MANAGER

ESTIMATION MANAGER

PROJECT CONTROLS MANAGER

CONTRACTS ADMINISTRATOR

SCHEDULING ENGINEER

CONTRACTS ENGINEER

PLANNING ENGINEER

PROJECT ENGINEER

QUANTITY SURVEYOR

BIM COORDINATOR

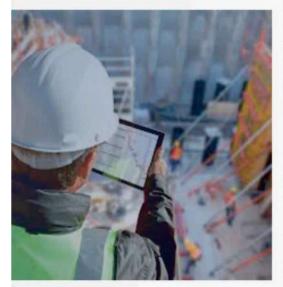
BIM MODELLER

BILLING ENGINEER

TENDERING ENGINEER



Academic Calender & Attendence



PGPACM course is a incubator for a graduate to become professional and hence all systems and policies are set accordingly. Students are informed to refer the academic calendar.

Entire program consists of around 180 days including coursework days, national holidays and Sundays.No other holidays are granted to students. Students shall maintain 90 per cent attendance to be eligible to pass each level and to get full benefit of the program and final certificate. Students may avail leaves on account of genuine reasons such as passport interview, major illness, and marriage of real brother/sister only. Leaves shall be applied 3 days in advance and get sanctioned. Student shall cover portion missed during leave period on his own responsibility. Sanctioned leave does not mean consideration in attendance. Attendance is a physical presence during conduct of session.Penalty will be application in case student fail to recover those missed classes.

Academic Requirement



Course Work:

The list of courses to be studied module wise is mentioned in Course Structure. Teaching schedule and hours may vary depending upon other demands on students and teachers. Typically, a full course involves 50 to 60 hours of teaching. There is total 1 class test per module. The distribution for course work and specialization is shown below. Marks are converted finally into grades. Assessment of skills is the focus in this course. Tests are conducted in most apt format such as written, oral, presentation, group discussion or even activity based / case study based evaluation. All submissions shall be submitted by students from their personal mail id to Google drive shared with students by faculties. All test papers shall be submitted back to the institute as an official record for audit. If misplaced by the student, either he has to rewrite it and submit or make an affidavit for it.



<u>Grades</u>

| Modules & Certifications | Marks |
|---|-------|
| PGP 01: QUANTITY SURVEYING | 200 |
| PGP 02: PROJECT MANAGEMENT | 200 |
| PGP 03: BUILDING INFORMATION MODELLING | 200 |
| PGP 04: CONTRACTS MANAGEMENT | 200 |
| PGP 05: EMPLOYABILITY TRAINING PROGRAM | 100 |
| CP 01: CERTIFICATION IN ORACLE PRIMAVERA P6 | 100 |
| CP 02: CERTIFICATION IN MICROSOFT PROJECT | 100 |
| CB 03: CERTIFICATION IN REVIT ARCHITECTURE | 100 |
| CB 04: CERTIFICATION IN REVIT STRUCTURE | 100 |
| AUTOCAD SKILLS | 50 |
| MS EXCEL SKILLS | 50 |
| LETTER/DOCUMENT WRITING SKILLS | 50 |
| PRESENTATION SKILLS | 50 |
| REPORTING SKILLS | 100 |
| | |
| TOTAL | 1600 |
| ATTENDANCE | 300 |
| EVENT PARTICIPANT | 200 |
| BEHAVIOR & DISCIPLINE | 300 |
| GRAND TOTAL | 2400 |

Final grade will be given by converting marks in to grades

| Marks between 2000-2400 | A+ |
|-------------------------|----|
| Marks between 1600-2000 | A |
| Marks between 1200-1600 | В |
| Marks between 1000-1200 | С |
| Marks less than 1000 | С |



TESTIMONIAL FROM OUR ALUMNUS



Engr Mohammed Abbas Construction Manager, USA

Want to reach new heights specially in Construction Management?? Just come her and join in. Faculties will not only share their knowledge but also their experience of working in different countries. Quantity surveying. Primavera P6 software are one of those skills you just don't want to miss taking classes of.



Engr Bhanu Prakash Project Engineer, Dubai, UAE

Doing the PGPACM Course at EDGE was a life-altering experience that has provided me with the foundation to a successful career. the teaching staff were very knowledge in their areas of expertise and strive to provide real world examples coupled with theoretical analysis to enthusiastically teach the principles of engineering.



Mohammed Mohtasham Project Engineer, KSA

Positive Outlook & Endless
Learning Opportunities at EDGE
If you show initiative, the Culture
and Environment is Wonderful
& Training by the faculties was
an eye opener for me. The
Course Material for PGPACM
is truly great, and good thing
is that you will get real time
Project Explanation with
Case Studies. Thank you
EDGE.



Engr Junaid Hussaini Construction Mangement Student, USA

A Very good clear and complete over the subjects in Construction Management is being delivered throughout the course. Every topic is explained cleared as per mentioned and promised the modeling of the course as per stages is very interesting.



Engr Sara Saeed Planning Engineer Banglore, India

I really enjoyed learning at EDGE SCOM. I came to do the PGPACM Course with many apprehensions but I am glad I am going back with many memories and through subject knowledge Teaching by the faculties is brilliant and every topic was taught with ease.



Engr Kalpesh Varma, Contracts Engineer, Pune, India

My experience with EDGE SCOM has been amazing. Faculties are highly experienced and made concepts very simple to understand. Mast of the study was explained using practical situation which made the course interesting and easy to uderstand I would definitely recommend EDGE for any course to civil Engineering.





CPQS

- Estimation & Measurements
- Bill of Quantities as per CSI Divisions

QUANTITY SURVEYING

Cost Controlling

PROJECT

MANAGEMENT

BUILDING

INFORMATION

MODELLING

CPPE

- Project Management Context
- Project Initiation
- Scope Planning
- Schedule Planning
- Resource Planning
- Project Risk
- Project Execution
- Project Control
- Project Closeout

CPBIM

- BIM Software
- BIM Knowledge & **Process**
- 3D BIM Modelling
- 4D BIM
- 5D BIM
- Clash Detection using **Navisworks**
- Application . on Live Projects

CPCE

- Principles of Contracts
- Contract Preparation
- Contract types and strategies
- The Tendering stage
- Contract award
- Different pricing methods
- Contract administration
- Claims and variation orders

ENGINEER'S EMPLOY ABILITY
TRAINING PROGRAM

POST GRADUATE

PROGRAMME

IN APPLIED

CONSTRUCTION

MANAGEMENT

EETP

- C.V Preparation
- Interview Questions
- Mock Interviews

PGPACM Certification

Trainees earn the EDGE-SCOM Certification after completing the program requirements which are designed and developed in compliance with international standards and ongoing update based not only on the latest international principles and practices, but also field research first-hand experience, and in-depth knowledge of the market and the specific requirements of organizations.





Program syllabus

PGP 01- QUANTITY SURVEYING & COST CONTROLLING

Part-1

- Introduction to Engineering project including project cycle & bidding documents.
- Methods of measurement of the works.
- Quantities surveying by manual calculations for the following different works
- ♦ Earthworks Calculations
- Calculation of Excavation Quantities for Spread Footings & Mat/Raft Foundations
- Calculation of Soil Treatment Quantities
- Calculation of Backfilling Quantities
- ♦ Concrete works Calculations (PCC & RCC)
- Calculation of Footings Concrete Quantities
- ♦ Calculation of Tie Beams Concrete Quantities
- ♦ Calculation of Column neck Concrete Quantities
- ♦ Calculation of Plinth Beams Concrete Quantities
- Calculation of Slab on Grade Quantities
- ♦ Calculation of RC Core Wall Concrete Quantities
- ♦ Calculation of Retaining Wall
- ♦ Calculation of U/G Water Tank/Sump Quantities
- ♦ Calculation of Floor Columns Concrete Quantities
- ♦ Calculation of Floor Beams Concrete Quantities
- ♦ Calculation of Floor Slabs(Cast-in-situ & PreCast Hollow Core Slab)
- Calculation of Staircase, Ramps & Lift Core Concrete Quantities
- ♦ Masonry works Calculations
- Calculation of Brickwork for Internal, External, Parapet & Boundary Walls Quantities
- Plastering works Calculations
- Calculation of Brickwork Plastering, Wall Plastering & Ceiling Plastering Quantities
- ♦ Tiling works Calculations
- Calculation of Floor Tiles, Dado Tiles & Wall Tiles
 Quantities
- ♦ Thermal & Moisture Protection works Calculations
- Membrane Waterproofing Quantities
- Vapour Barrier, Damp-Proofing & Bitumen Paint Calculations
- Metal works Calculations
- ♦ Internal & External Finishes Calculations
- ♦ Wood & Plastic works Calculations
- Doors & Windows works Calculations
- Painting works Calculations
- ♦ Glazing works Calculations
- Specialties works Calculations
- ♦ Mechanical works
- ♦ Electrical works
- ♦ Steel Calculations of Sub-Structure & Super Structure
- Application on Engineering project

Program Structure

Modules Included:

PGP 01

Quantity Surveying

PGP 02

Project Management

PGP 03

Building Information Modelling

PGP 04

Contracts Management

PGP 05

Engineer's Employability Training Program

Certifications Included:

CP 01- ORACLE PRIMAVERA P6

CP 02- Microsoft Project

CB 01- Revit Architecture

CB 02 -Revit Structure

CB 03 -Navisworks

CB 04 - ETABS

CB 05 -SAFE

Part-2

- Quantity take-off from CAD Drawings (Civil/Architectural).
- ♦ Preparation of Payment certificate.
- ♦ Bill of Quantities as per CSI Divisions.
- ♦ CAD & MS Excel Training.
- ♦ Variations & Claims

Part-3

- Introduction to construction project stages
- Overview of the Construction contracting methods, and contracts types.



PGP 02- PROJECT MANAGEMENT





Introduction

· Introduction to this Course

Basic Concepts

- What is a Project?
- What is Project Management?
- Five Process Groups of Project Management• Schedule and its Importance
- Critical Path Method for Scheduling
- Understanding a Gantt Chart
- Project Management Fundamentals

Introduction to Primavera P6

- Introduction to Oracle Primavera P6 PPM
- Primavera P6 Interface and Preferences

Enterprise Environment in Primavera P6

- Organizational Breakdown Structure
- Enterprise Project Structure
- Work Breakdown Structure
- Access Control in Primavera P6

Planning and Creating a New Project

- Planning your Project Schedule
- Understanding a Sample Project
- Creating a New Project in Primavera P6
- Project Window Options
- Total Float and Project Must Finish Date

Calendars

- · Role of Calendars in Scheduling
- Adding and Assigning Calendars

WBS, Activities and Basic Formatting

- Creating WBS in Primavera P6
- Formatting Columns and Timescale
- Percentage Complete Types in Primavera P6
- Activity Types in Primavera P6
- Setting Defaults for New Activities
- Adding Activities
- Estimating Duration of Activities
- Adding Duration of Activities

Relationships and Scheduling

- Understanding Relationships
- Adding Relationships and Scheduling
- Understanding Scheduling Algorithm

Formatting, Sharing and Reporting

- Formatting Bars
- · Group, Sort and Layouts
- Filtering in Primavera P6
- Reporting in Primavera P6

Updating and Monitoring

- Understanding and Adding Baseline
- Updating a Project
- Monitoring and Controlling a Project
- Recovering the Baseline Schedule
- Preparing Revised Recovery Schedule

Roles, Resources and Expenses

- Understanding Roles, Resources and Expenses Resource and Cost Terminologies
- Adding and Assigning New Currency
- Adding Roles and Resources
- Resource Window Details

Duration Types in Primavera P6

- Resource Options and Assigning Resources
- Reviewing Resource Allocation
- Adding Expenses
- Reviewing Resource and Cost Usage
- Updating a Project with Resources and Expenses **Cost Accounts**

Generating S-CURVE from PRIMAVERA P6 Schedule

- Planned/Actual Progress S Curve
- Cash Flow Curve

Resource Levelling

- · What is Resource Levelling & How to do it
- Resource Usage Spreadsheet
- Resource Usage Profile

Analyzing & Understanding Histograms

- Manpower & Machinery Histograms
- Stacked Histogram

Look Ahead Schedules

- 2-Week Look Ahead Schedule
- One Month Look Ahead Schedule

Earned Value Analysis

- EVM Fundamental Parameters
- EVM Metrics
- Cost Variance
- Schedule Variance
- Cost Performance Index
- Schedule Performance Index
- Running Earned Value Analysis on a LIVE PROJECT

Delay Analysis in Primavera P6

- As Planned Vs. As Built in Primavera P6
- Impacted As Planned Method in Primavera P6
- Collapsed As Built in Primavera P6
- Window (Time Impact Analysis)

Recovery Schedule

PRIMAVERA P6 USEFUL TRICKS

Conclusion

- End Exam
- Printing, Exporting and Importing PLUS + Complimentary Free Bonus Certificate Course Microsoft Project





PGP 03-BUILDING INFORMATION MODELLING

Module Description: This module covers Building Information Modeling (BIM), including its use and application for small- and large-scale building construction projects. Students will learn terminology associated with buildings, the theory and evolution of BIM, and how to develop BIM models using Autodesk Revit. As time allows, this course will also cover selected topics on how BIM is used to help prepare or feed into key project items, such as cost estimation, architectural renderings, & interference checking.

This course will provide the student with multiple learning opportunities to expand their engineering knowledge and experience. We will focus on both the technical and professional areas of engineering.

Technical:

- Develop building and infrastructure vocabulary to be able to describe a building, its components, and its systems, including the architectural, MEP (mechanical, electrical, plumbing), and structural components.
- ♦ Describe evolution and development of BIM from its origination to today.
- ♦ Be able to compare, including advantages and disadvantages of BIM vs. 2D and 3D CAD
- ♦ Explain the challenges and roadblocks still facing the use of BIM Model
- Understand applications of BIM, such as cost estimation, architectural renderings, interference checking, and modeling of energy consumption

Professional:

Contextual understanding of BIM and its role and application in the construction industry

Course Topics

Part I: Introduction to/Review of Buildings & Systems

- ♦ Building components and systems (architectural, structural)
- ♦ Building vocabulary
- ♦ Building drawings, specifications
- ♦ Building design process and roles of owners, managers, designers, engineers and contractors/subcontractors

Part II: Introduction to BIM and BIM Concepts

- ♦ What is BIM?
- How can BIM be a part of the building design process?
- ♦ BIM vs. 3D CAD
- Evolution and development of BIM & object-based parametric modeling
- ♦ BIM platforms

Part III: Autodesk Revit (Arch & Structure), Navisworks, ETABS & SAFE

- Mass and concept modeling
- Detailed modeling
- Creating, importing and modifying families of objects and elements
- Architecture and Structural applications
- Creating plans, sections, details, schedules, cover page

Part IV: Future of BIM

Part V: Miscellaneous Applications of BIM

- ♦ 4D BIM multidimensional planning of a construction process,
- ♦ 5D BIM advanced methods for cost analysis, automated quantity take off,
- Clash Detection using Navisworks





PGP 04- CONTRACTS MANAGEMENT

Course Outline

Principles of contracts

- → -Elements of a contract
- -Expressed and implied contracts
- -Problems in preparing and managing contracts

Contract preparation

- Stages of contract preparation and management
- → Developing the scope of work
- → -Problems with a badly written scope of work
- → Decision analysis worksheet
- → -Evaluation criteria
- -Terms and conditions

Contract types and strategies

- → Fixed price contracts
- Cost reimbursable contracts

The tendering stage

- Objectives of tendering
- Alternative to tendering
- → -Tendering procedures
- → Invite potential bidders
- → Tender briefing
- → Receiving and opening of bids

- -Invitation to tender

Receipt and opening of bids

- → Bids evaluation and contract award
- -Preliminary examination of bids
- → Detailed examination of bids

- → -Whole life costing
- -Most economic advantageous tender

- -Technical bid scoring
- → -Method of awarding a contract

Contract award

- → -Contractor evaluation
- → Contractor's ratings
- → -Key performance indicators
- → Service level agreement (SLA)
- -Managing subcontractors
- -Partnership with contractors
- → Different pricing methods
- → -Whole life cost
- → -Value for money
- -Most Economically Advantageous Tender (MEAT)

Contract administration

- -Purpose of contract administration
- → -Documents needed to administer a contract
- ♦ -Contract administration tools
- ♦ -Role of contract administrators
- Claims and variation orders
- → Breach of contract
- → -Equitable remedies
- ♦ -Changes and modifications
- -Alternative dispute resolutions (negotiation, mediation)





PGP 05- ENGINEER'S EMPLOYABILITY TRAINING

Course Outline

- Hard Skills VS Soft Skills
- ♦ Self Performance Work Performance People Performance
- ♦ Self-Engineering Elevate from Data Understanding to People Understanding
- ♦ Top 5 Must Have Soft Skills for Professional Engineers
- ♦ Self Analysis Tools
- ♦ Group Activity
- Employability Skills to make a presence in Global Market
- ♦ Tips for Time and Self-Management
- ♦ Q&A Session with Feedback

Outcome of the course:

- ♦ Understand How to maximise your verbal and visual communication skills
- Understand how to speak fluently and confidently
- ♦ Learn how to give importance to your language to create an impact
- Learn art of Self-Management with International Tools
- Learn how to heighten your personal presence
- ♦ Insightful information on how to increase Performance
- Proper understanding of mandatory soft skills





MEET OUR CORE FACULTY

Mohammed Zubair

Education Entrepreneur/
Founder of EDGE School of Construction Management

MS in Construction Management, UK B.E. in Civil Engineering (Osmania Univ) Project Management Professional (PMP) Professional Scrum Master (PSM1)

TOTAL NO. OF QUANTITY SURVEYING BATCHES CONDUCTED



TOTAL NO. OF PROFESSIONALS TRAINED



WORK EXPERIENCE 15 YEARS

Worked in INDIA, USA, KSA & UK on Major Projects in Planning/ Estimating Contracts roles. A dynamic Project Management Professional with over 15 years Professional Experience in Managing Projects, having expertise in Project/ Contracts/ Cost/ Resource Management. Conducted over 300 batches for Construction Professionals



Construction Management.
Project Planning & Scheduling.
Building Information Modelling.
Earned Value Analysis.
Contracts Administration.
Tendering Management.

Variation & Claims
Budgeting & Costing.
Risk Analysis.
Resource Analysis.
Quantity Surveying.
Dispute Resolution.

FOLLOW US ON OUR SOCIAL PLATFORMS



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