



### **Workshop on Construction Quality Control on Site**

February 10 – 14, 2025, 1<sup>st</sup> Run: Lagos & Abuja

August 4 – 8, 2025, 2<sup>nd</sup> Run: Lagos & Port Harcourt

**For Tutor -Led Class: 9am – 4:30pm**

**Workshop fee: N300, 000 per Participant**

**For online: Delivery via Zoom**

**Online course fee: N250,000 per Participant**

**Available for In-plant Training**

**700 US\$ for foreign  
Participants**

#### **Program overview:**

Structural engineers are encountering many problems due to the hot climate and the other environmental conditions. Quality control in construction of the reinforced concrete structure is a complete function which involves management, statistics and engineering. In a hot climate, it needs more precaution in concrete industry and on the construction of the building to match with the requirement to this weather. This training program on Construction Quality Control on Site will focus on using the statistics as a tool to control all the activities of the construction projects, especially the concrete product. The quality control of the concrete is illustrated in scope of the different codes and specifications.

#### **For whom:**

This program is designed for structural and civil engineers responsible for the Quality Control and Quality Assurance, with the most recent non-destructive testing for concrete; it is also beneficial for Construction Engineers, Project Managers, Construction Managers, Quality Assurance and Quality Control professionals.

#### **Learning objectives:**

At the end of this program, participants will be able to:

- use all quality management techniques and procedures;
- learn available non-destructive testing for concrete and steel structure projects;
- apply practical tools to control the concrete and the whole project that includes field-testing and the required laboratory facilities;
- learn modern field measurements for concrete strength;
- learn all quality control techniques in hot climate; and
- use various techniques to evaluate the structures under construction.

#### **Course outline:**

##### **Day One: Total Quality management system**

- Quality assurance & Quality control, who will perform the quality control?
- How to quality control the concrete from ready mix plant
- How to quality control concrete casting onsite
- Coefficient of variation, auditing the construction site quality
- Precaution in design mix in hot climate

##### **Day Two: Codes recommendation for the quality control**

- Codes and specifications limitations as ACI and EN
- Comparison between different non-destructive testing
- The nature of concrete variability

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- Concrete materials properties such as Aggregate and cement
- Steel sections QC, Check laminar and porosity in steel sections
- Example of QC of concrete foundations construction under vibrating machine

**Day Three: Basic statistics: Collecting a data for evaluations**

- Statistics for the quality control data, evaluating the grade of the quality
- Precaution in design mix in hot climate for remote area
- QC for fresh concrete, Quality control for concrete formwork
- Pouring concrete in hot climate, Workability test for concreted
- Cube and cylinder test, the quality of the steel bars
- Material receiving, storage and preservation at site
- Interface between E&I, piping and structure in construction activities

**Day Four: Comparison between different Non-destructive tests**

- Core test, Rebound hammer, Lok test
- Load test for floor deck under machine
- Ultrasonic test, Corrosion phenomena affect quality
- Different corrosion protection system
- QC for corrosion protection system for oil and gas plant
- Wooden and steel form QC, Steel reinforcing QC
- Procedure of QC onsite
- QA/QC Case study for foundation in gas plant

**Day Five: Materials for Use in welding for steel structure**

- QC for Equipment preservation and installation for static & dynamic equipment
- QC for tank construction, QC for foundation construction and machine installation
- The precaution in welding process, Anchor bolts QC
- The reasons of welding defects, Differentiate between Non-destructive test
- Overview of the 5 methods (PT, MP, RT, UT, VI)
- Integrity management system for building and construction industry

**LOCATIONS**

1 - HCA Learning Centre. Acme House 2nd Floor, 23, Acme Road, Ogba, Industrial Scheme, Ikeja, Lagos, Nigeria

2 - Pearls Learning Hub, Plot 756, Opposite Divine Hand of God Ministry, Area 1, Garki, Abuja.

3 – Pakiri hotel Ltd., 4 Okwuruola Street, off Stadium Road, Rumuola, Port Harcourt, Rivers State.

**Open Course Fee: N300, 000**

In-plant Fee Negotiable

**WORKSHOP FEE:**

**N300, 000 per participant, VAT –N22, 500**

Note: this covers Workshop Fee, Tea/coffee break, Lunch, course materials and certificate of attendance.

Payment should be made into our Accounts:

Account Name: Human Capital Associates Global Consult Ltd.

Union Bank of Nig. PLC: Account No: 0097961537

First Bank of Nig. PLC: Account No: 2033683960

Keystone Bank Ltd.: Account No: 1007150325

**For Booking / Enquiry, Call: 234-8051365946, 234-7087578814  
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**Training Methodology**

**Methodology:** Lectures, discussions, exercises, case studies, audio-visual aids will be used to reinforce these teaching/learning methods.

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