

# **DESIGN AND FIELD EXPERIENCE SHARING**

**THE NIGERIAN INSTITUTE OF BUILDING (NIOB)**

**BUILDING PRODUCTION AND  
STRUCTURAL STABILITY**

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# DESIGN AND FIELD EXPERIENCE SHARING

## Introduction

# DESIGN AND FIELD EXPERIENCE SHARING

- Building Collapses
- Poor Construction Quality
- Abysmal Safety records
- Lack of Professionalism
- Professional in-fighting
- Economic Woes
- Poorly Trained Artisans
- etc, etc

# DESIGN AND FIELD EXPERIENCE SHARING

Collaboration is essential

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## COMMON MISTAKES ON CONSTRUCTION SITES

# DESIGN AND FIELD EXPERIENCE SHARING

- Impromptu addition of water/additives
- Poor mix design or inappropriate use
- Missing elements / Incorrect placement
- Wrong location of construction joints
- Poor Introduction of holes/penetrations
- Changes without permission of the Designer
- Inadequate Falsework/Formwork

# DESIGN AND FIELD EXPERIENCE SHARING

- Inadequate Vibration of concrete
- Inadequate curing
- Conflicts between contractor and Designer
- Inadequate knowledge of concrete sampling procedures for strength test.
- Omission of trimmer bars around openings.
- Inadequate Laps and anchorage of reinforcement at critical stress locations  
Bending and re-bending of reinforcement  
Punching shear reinforcement omitted



# DESIGN AND FIELD EXPERIENCE SHARING

- Inadequate bracing
- Over use of formwork
- Scaffolding inadequacies
- Poor formwork
- Scaffolding not supported on firm surface  
Loading of structure prematurely
- Non consideration of construction sequence
- etc,etc

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## Conclusions



# Q & A Session