



Workshop on Cracking Campus Placements

Organized by

Training & Placement Cell, MANIT Bhopal

Introduction

As part of its ongoing commitment to bridge the gap between academia and industry, the **Training & Placement Cell of MANIT Bhopal** organized insightful sessions under the **Campus Placement Workshops Program in September 2025**. Centered on the **Do's and Don'ts of Concrete Practices**, the workshops emphasized the importance of quality control, correct material handling, proper curing, and adherence to safety norms in construction. Students were guided on common errors to avoid, best practices to adopt, and the role of precision in ensuring durability and sustainability of structures. The sessions provided valuable exposure to industry standards, corporate expectations, and strategic placement preparation.

Session 2: Do's and Don'ts of Concrete Practices

Dates: 27nd September 2025

Time: 11:15 AM - 12:30 PM

Total Registrations: 77

Final Year Registration: 42

Pre Final Year Registration: 23

Architecture Registration: 12

Workshop Highlights:

The session commenced with a gracious welcome address by Dr. Aruna Saxena, introducing our esteemed guest, Mr. Umesh Kumar, to the panel.

Mr. Kumar was introduced to the panel, following which he commenced the session by emphasizing the importance of efficient on-site practices and material management. He highlighted that storage areas for cement, aggregates, and admixtures must be protected from moisture and contamination, ensuring materials are used within their shelf life. He also discussed monsoon preparedness measures such as waterproof coverings, elevated stacking, and proper drainage to prevent deterioration of raw materials.

In the technical segment, Mr. Kumar focused on **the Do's and Don'ts Practices for Concrete Works**. He underlined the need for accurate proportioning, proper mixing, and correct water-cement ratio, demonstrating how even small deviations could affect strength and durability. Using diagrams from his presentation, he explained the importance of adequate compaction through vibrators and the role of proper curing methods to prevent shrinkage cracks. He also addressed common site errors such as over-vibration, re-tempering, and improper formwork removal, stressing the importance of benchmark referencing and strict adherence to quality standards.

The final part of the session covered the sequence of concreting operations—from formwork preparation and reinforcement placement to pouring, compaction, and curing. Mr. Kumar explained how good practices such as layering concrete in lifts, ensuring cover blocks, and maintaining curing cycles enhance structural longevity and safety.



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He elaborated on the significance of temperature control during curing and highlighted the role of site engineers in monitoring quality through cube testing and slump checks. The session concluded with a detailed overview of safety precautions, proper handling of equipment, and quality control measures, offering students valuable insights into best practices for durable and sustainable concrete construction.

Interactive Q&A Session

The workshop included an engaging Q&A round, where students asked:

- How is the correct water–cement ratio maintained on site?
 - Mr. Kumar explained that standardized mix designs and controlled batching (preferably using weigh-batching instead of volume-batching) are essential to maintain consistency and strength.
- What are the common mistakes to avoid during concreting?
 - He highlighted issues such as adding excess water, inadequate compaction, premature formwork removal, and neglecting curing—emphasizing that these must be strictly avoided to ensure durability.
- How long should concrete be cured for optimal strength?
 - Mr. Kumar explained that curing must be continued for at least 7 days for ordinary cement and 10–14 days in hot or dry weather conditions, using methods like ponding, wet coverings, or curing compounds to prevent moisture loss.

Vote of Thanks

The session concluded with a heartfelt vote of thanks delivered by Dr. Mohammed Hashid; expressing gratitude to Mr. Umesh Kumar for sharing his valuable insights and technical expertise, and appreciated the enthusiastic participation of the students.

2. Good & NG Practices - Rebar ... 2.c. Rebar Splicing.

Why Overlapping at particular location? Why not other locations? – Column...

- At the centre of the column, the bending moment is equal to zero.
- The centre of the column is under minimum pressure. It is desirable to provide lapping in this section of the column.

Diagram labels: Lapping X, Lapping ✓, Lapping X.

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2. Good & NG Practices - Rebar ... 2.c. Rebar Splicing.

Good Practice Overlapping locations in Column/Beam Examples...

Effective Height (H) = 5,700 mm	Clear Height between Beams,
H/4 = 5700/4 = 1,425 mm	No Overlapping Here.
H/4 = 5700/2 = 2,850 mm	Here Lapping OK.
Main Rebar Dia (d) = 25 mm	
Lap Length = 50 x d	
Lap Length = 50 x 25 = 1,250 mm	
Difference between laps = 350 mm	Minimum 300 mm is required

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Introduction....

What is the impact of shortfall?

- A Compromise in safety/environment reflects during the project.
- A Compromise in timeline creates cost to the company.
- A Compromise in quality impacts in long term with loss of money and face value of the company

How to improve?

Plan the Work and follow the process in each stage of construction and No shortcuts.

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DO's & Don't's Practices For RCC Works

PREPARED & PRESENTED By :- Umesh Kumar Dated - 27 Sep 2022

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Conclusion

Overall, the session proved to be highly informative and engaging, offering students practical insights into modern construction practices. The positive response and active participation reflected the session's impact. Encouraged by its success, the **Training & Placement Cell** looks forward to organizing more such workshops in the future to further enhance industry readiness among students.

SMCC India Team:

Mr. Umesh Kumar
General Manager and Sr. Project Manager
Sumitomo Mitsui Construction Co. Ltd.

Organizer:

Prof. Aruna Saxena, Head, T&P Cell
Maulana Azad National Institute of Technology Bhopal, M.P.

Student Coordinator Team:

Aryan Rai, Placement Coordinator, Chemical Department
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