



# 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 March 2025**. Focused on modern construction innovations, such as Pre-Engineered Buildings (PEBs), the workshops highlighted the speed, flexibility, and cost efficiency of these solutions in reshaping infrastructure. Students gained valuable exposure to industry trends, corporate expectations, and strategic placement preparation as part of the Career Competency Series, fostering enhanced employability and professional readiness.

## Session 1: Pre-Engineered Buildings (PEBs)

Dates: 2<sup>nd</sup> August 2025

Time: 11:15 AM - 12:30 PM

Total Registrations: 81

Final Year Registration: 43

Pre Final Year Registration: 23

Architecture Registration: 25

### 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 must strictly follow layouts approved by the Project Manager to avoid delays, and must allow easy access for loading, inspection, and rectification. He also discussed monsoon preparedness measures such as waterproof coverings, elevated stacking, and proper drainage to protect materials from corrosion.

In the technical segment, Mr. Kumar focused on the foundational requirements for PEB erection. He underlined the need for precise grid marking, leveling, and alignment, demonstrating how small deviations could compromise structural integrity. Using diagrams from his presentation, he explained the use of laser-guided tools and theodolites for accuracy. He also addressed common site layout errors, emphasizing the importance of benchmark referencing and thorough cross-verification. The final part of the session covered the erection sequence, from anchor bolt placement to temporary stabilization of structural members. Mr. Kumar explained how PEBs are engineered to resist wind and seismic forces using rigid frames, bracing systems, and moment-resistant joints. He elaborated on proper bolt-tightening procedures using a two-stage verification system involving subcontractors and site quality engineers. The session concluded with a detailed overview of girder fabrication, crane selection for high-rise structures, and key safety considerations, offering students valuable insights into modern construction practices.



# TRAINING & PLACEMENT CELL, MANIT BHOPAL

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## Interactive Q&A Session

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

- How are PEBs customized for different industrial needs?
  - Mr. Kumar explained that clear span, mezzanine floors, and crane systems are tailored based on client requirements.
- What are the cost advantages of PEBs over conventional construction?
  - He highlighted faster construction, reduced labor costs, and minimal wastage as major benefits.
- How is fire resistance ensured in PEBs?
  - Fire-retardant coatings and insulated panels are commonly used, along with compliance with international safety codes.

## Vote of Thanks

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

Bolt	Indent mm	Hex Socket mm	Recommend Torque			
			392Mpa	588Mpa	784Mpa	941Mpa
M14	22	12	69	98	137	165
M16	24	14	98	137	206	247
M18	27	14	137	206	284	341
M20	30	17	176	296	402	569
M22	32	17	225	333	539	765
M24	36	19	314	470	686	981
M27	41	19	441	637	1029	1472
M30	46	22	588	882	1225	1962
M33	50	24	735	1127	1470	2060
M36	55	27	980	1470	1764	2453
M39	60	27/30	1176	1764	2156	2943
M42	65	32	1519	2352	2744	3826
M45	70	—	1764	2744	3136	4415
M48	75	36	2254	3430	3920	5592
M52	80	36	2744	4116	4704	6573
M56	85	41	3528	5149	5978	8437
M60	90	46	4018	5978	7742	10791



## 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:**

**Akash Shukla**, Placement Coordinator, Chemical Department  
**Tanishq Sarda**, Placement Coordinator, Civil Department

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