

J.S. University, Shikohabad


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Value Added Course
(Advance Construction
Equipments & Materials
Management)

Faculty of CIVIL ENGINEERING

	J.S. University, Shikohabad Faculty of Civil Engineering	Value Added Course
		AY: 2022-23

Advance Construction Equipments & Materials Management

Learning Objectives:

This Course will provide knowledge of handling construction equipment and management of material.


Duration: 30 Hours. (Theory and Practical)

Course Outcomes: -

Maximum Exposure has to be given on Practical Oriented

On successful completion of the course students will have the :

- 1) Knowledge of construction equipment's practices and techniques to be used in the field.
- 2) Be able to apply theoretical and practical aspects of project management techniques to achieve project goals.
- 3) Become familiar with construction equipment and their capabilities
- 4) Learn how to best utilize construction equipment on site work and heavy civil projects
- 5) Properly select heavy equipment based on applications, utilization, productivity, and other factors.

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Syllabus Outline

1. Module-1

Construction Equipments

Different types of construction equipments viz. Earth moving equipments & their outputs, Dewatering equipments, Pumping equipments, Grouting equipments, Pile Driving equipments, Compaction equipments, Concreting equipments. Equipment Management Planning of construction equipments, Forecasting equipment requirement, Operation & Utilisation, Equipment replacement, Manpower planning & Maintenance of equipments.

2. Module-2


Economics Of Construction Equipments Operation Cost & Its Types.

Investment Cost, Cost of Repairs, Overheads Cost accounting, Break-even point theory, Replacement of equipment. Materials Management Scope, objectives & importance of materials management, Selective control techniques, Disposal of surplus material.

3. Module-3

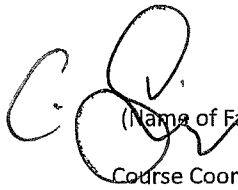
Inventory Control & Spare Part Management

Need, function, steps in inventory control. Advantages, Economic order quantity, Inspection & procurement of spares, stores & stock management.

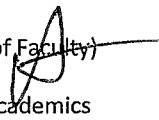
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References:-

1. "Construction Equipment & Planning", Purifoy, R.L & Ledbetter, McGraw Hill
2. "Construction Equipment & its Management", Sharma, S. C. Khanna Publishers
3. "Tunnel Engineering Handbook", Thomas R. Kuesel, Elwyn H. King, John O. Bickel, Springer
4. "Practical tunnel construction", Gary B. Hemphill, Wiley Publishers
5. "Construction Technology for Tall Buildings", Michael Yit Lin Chew, World Scientific
6. "The prefabricated home", Colin Davies, Reaktion Books


 (Name of Faculty)
 Course Coordinator

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 (Name of Faculty)
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Director/Principle/Dean of
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