

KRISHNASAMY

College of

ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University

DEPARTMENT OF CIVIL

13.01.2023

CIRCULAR

Ref.: KCET/CIVIL/VAC/CIRCULAR/2022-23/01.

The following Value Added Course will be conducted during the academic year 2022-2023. The course will be conducted from 23.01.2022 to 28.01.2023. Students are instructed to register their names in the course allotted to them.

Note: Students are instructed to attend the program without fail.

S.No.	Course Code	Name of the Course	Year	No. of Period	Course Coordinator
1	CE-VAC2201	SAFETY IN CONSTRUCTION WORKS	IV	36	Er.C.Sureshkumar, AP/CIVIL
2	CE-VAC2202	ADVANCED EQUIP MENTS APPLICATION IN CONSTRUCTION	III	30	Er.V.Thirumurugan AP/CIVIL

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Class Room

Class In charge

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SYLLABUS

Subject Code/ Subject Name: CE-VAC2202 - ADVANCEDEQUIPMENTS APPLICATION

IN CONSTRUCTION

Duration: 30 Hours

OBJECTIVE

The main objective of this course is to make the student aware of the various construction equipment needed for different types of construction activities.

MODULE I CONTRUCTION EQUIPMENTS

6

Site Clearance - Marking - Earthwork - masonry - stone masonry - Bond in masonry - concrete hollow block masonry - - movement and expansion joints - pre cast pavements - - laying brick -- weather and water proof -roof finishes - acoustic and fire protection.

MODULE II SUB STRUCTURE CONSTRUCTION EQUIPMENTS

6

Techniques of Box jacking - Pipe Jacking -under water construction of diaphragm walls and basement-Tunneling techniques - Piling techniques - shoring for deep cutting -well points - Dewatering and stand by Plant equipment for underground open excavation.

MODULE III SUPER STRUCTURE CONSTRUCTION EQUIPMENTS

6

Launching girders, bridge decks, off shore platforms - special forms for shells - in-situ prestressing in high rise structures, Material handling - erecting light weight components on tall structures - Support structure for heavy Equipment and conveyors -Erection of articulated structures, braced domes and space decks.

MODULE IV CONCRETING EQUIPMENTS

6

manufacturing of concrete -Batching - mixing - transporting - placing - compaction of concrete - curing and finishing. Testing of fresh and hardened concrete - quality of concrete - Non - destructive testing.

MODULE V ADVANCED EQUIPMENTS

6

Selection of equipment for earth work - earth moving operations - types of earthwork equipment - tractors, motor graders, scrapers, front end waders, earth movers - Equipment for foundation and pile driving. Equipment for compaction, batching and mixing and concreting - Equipment for material handling and erection of structures - Equipment for dredging, trenching, tunneling,

TOTAL: 30 PERIODS



COURSE OUTCOME

At the end of this course the student shall have a reasonable knowledge about the various construction procedures for sub to super structure and also the equipment needed for construction of various types of structures from foundation to super structure.



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