

KRISHNASAMY

College of

ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University

Anand Nagar, Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109, Tamil Nadu.

☎ (04142) 285 601 - 604

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DEPARTMENT OF CIVIL ENGINEERING

Date : 04.01.2024

CIRCULAR

Ref.: KCET/CIVIL/VAC/CIRCULAR/2023-24/01.

The following Value-Added Course will be conducted during the academic year 2023-2024. The course will be conducted in two phases from 11.01.2024 to 12.01.2024 and from 18.01.2024 to 20.01.2024. Students are instructed to register their names for the course allotted to them.

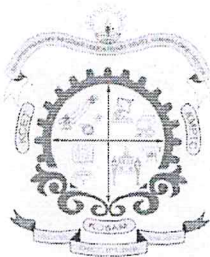
Note: Students are instructed to attend the program without fail.

| S. No. | Course Code | Name of the Course | Ye ar / Sem | No. of Period | Course Coordinator |
|--------|-------------|--|-------------|---------------|----------------------------|
| 1 | CE-VAC2301 | Materials And Quality in Civil Engineering works | III/VI | 30 | Er.V.Thirumurugan AP/Civil |


HoD/CIVIL


Vice-Principal


Principal



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SYLLABUS

COURSE CODE CE-VAC2301
COURSE NAME MATERIALS AND QUALITY IN CIVIL ENGINEERING WORKS

COURSE OBJECTIVES

- To know about basic materials in construction works and its uses.
- Get knowledge for checking of quality by testing.
- To understand the various types of materials
- To advanced materials used in construction.

Module I : Introduction

6

Materials for Concrete -Cements – OPC, PPC, Blended Cement, Low Heat Cement, High Alumina Cement Composition, Hydration, Heat of Hydration, Properties and Testing
Aggregates – Coarse and Fine aggregates – Properties – size, Shape Texture, Bulk Density, Specific gravity, bulking, grading, Rules for storing Cement and aggregate
Water – Quality.

Module II Miscellaneous materials

6

Miscellaneous Materials Plastics – Classification, Composition, uses, Resins, P.V.C.
Asphalt, Bitumen, Tar.

Module III : Structural materials

6

Iron and Steel – Pig Iron, Cast Iron, Wrought Iron Steel – Properties, Treatment, Mild Steel, Fe 415, Fe 500 for reinforcement – Structural Steel.

Module IV : Non structural materials

6

Cork, Rubber, Gypsum, Ceramics, Glass, Fibre Glass..

Module V : Advanced materials

6

Ferrous Materials, Aluminum Copper, Brass, Bronze, Lead, Magnesium, Glass, Paints, Varnishes, Distempers.

Total No. of Periods 30

COURSE OUTCOMES

On completion of this course the student will be able:

Recognize various cement test to be carried out for concrete.

Identify the best construction materials.

Select various structural materials for construction works conditioning of building.

Understand the properties of other construction materials.


HOD/CIVIL