MOTHER TERESA
INSTITUTE OF SCIENCE AND TECHNOLOGY
Approved by AICTE, Govt. of Telangana , Affiliated to JNTUH & SBTET, Hyderabad
Recognition under Section 2(f) & 12 (B) of the UGC Act, 1956
SANKETIKA NAGAR, KOTHURU (V), SATHUPALLY – 507303, KHAMMAM Dist., TELANGANA
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ACCREDITED BY NAAC
B - GRADE

DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR: 2020-21

A SUMMARY REPORT

Course Name: BUILDING MATERIALS, CONSTRUCTION AND PLANNING

Name of the Resource Person: Mr. G. NARESH, AEE /PR. Dept/ Bonakal, Khammam.

Gap Identified: Self repairing cement and various standard test on building stones, Green Paints, Guidelines for planning and drawing of residential building.

No. of Students attended: 38 members

Summary: On the day of the forenoon session (i.e 28-10-2020) Mr. G. NARESH, AEE /PR. Dept/ Bonakal, Khammam., delivered a lecture on the basics of Introduction to the course of Environmental Engineering. Delivered a lecture on Self-healing concrete has dormant bacteria and a food source (starch) embedded in the concrete. When a crack appears in the concrete, water seeps in and reactivates the bacteria. After they awaken, the bacteria eat their packed lunch and then conveniently excrete calcite, which heals the crack. Self-healing concrete is a new type of concrete. It imitates the automatic healing of body wounds by the secretion of some kind of material. To create self-healing concrete, some special materials (such as fibers or capsules), which contain some adhesive liquids, are dispensed into the concrete mix.

Green painting technology:

Green coatings are environmentally friendly coatings that emit nearly no volatile organic compounds (VOCs) during production. Water-based paints, high-solid paints, powder coatings, and radiation-hardened coatings are some of the most common options of green coatings. Modern paints and coatings are complex mixtures of film-forming substances; fillers, pigments and a host of additives (see “Paint Components,” below). Many of the compounds traditionally used in paint and coating formulations present significant environmental and human health risks. Spurred by tightening regulations and growing demand for healthy and sustainable products on the part of end-users, the paints and coatings industry has delivered a wide range of materials with significantly improved environmental and health properties. And thanks to a continued focus on innovation, many of the newer

environmentally friendly paints and coatings have begun to achieve parity with conventional products in performance.

In the afternoon session, he explained the practical exposure of

Various standard tests on building stones:

There are various tests on building stones to know its properties and suitability for various construction works. A test on building stones provides physical and chemical properties as well as strength and hardness properties.

Tests on Building Stones:

Following are different tests on building stones:

1. Acid test
2. Attrition test
3. Crushing test
4. Crystalline test
5. Freezing and thawing test
6. Hardness Test
7. Impact test
8. Water absorption test
9. Microscopic Test
10. Smith's Test

Guidelines for planning and drawing of residential building:

Important, the following are typically not considered part of the residential design plans and may need to be prepared by suitably-licensed professionals:

1. Structural plans- these include the foundation, floor framing, and roof framing plans, as well as structural details. (See above for when a structural engineer is required).
2. Grading plan- when significant earth removal or addition is required, e.g., the proposed construction is on a slope.
3. Landscaping plan- usually not required by local building authorities, but sometimes required by HOA's.
4. Mechanical plan- showing the location of heating/ air-conditioning ducts, plenums, registers, etc.
5. Plumbing isometric plan- showing the location and size of water, gas, vent and waste lines.
6. Septic system plan- not applicable if you're connected to a sewer system.
7. Fire sprinkler plan- as of January 1, 2011, now required in all new residential construction with some exceptions.
8. Soils or geotechnical report.

Coordinator **Head of the Department**

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Dt: 28-10-2020.

To
Mr. Mr. G. NARESH,
Assistant Executive Engineer,
Panchayat Raj Department,
Bonakal,
Khammam.

Sub: Letter of Appreciation– Reg.

Dear Sir,

We would like to thank you for being delivered the keynote lecture on "self repairing cement and various standard test on building stones, green paint technology, Guidelines for planning and drawing of residential building." on 28th OCT 2020 for a Programme on **"**BUILDING MATERIALS, CONSTRUCTION AND PLANNING**"** organized by Department of Civil Engineering Conducted at Mother Teresa Institute of Science and Technology. Your views on new research areas in Civil Engineering and assessing the outgrowing needs in a competitive challenging environment helps the students to explore the industrial challenges.

Thanking you

With Regards

(Dr. C. Hari Krishna)
Principal