NEWS LETTER

January to March 2021

FDPs/WORKSHOPS/SEMINARS CONDUCTED

Webinar No 1: Recent trends in Civil Engineering Industry **Date: 20th March 2021**

Resource Person: Mr. R Balaji

The Department of civil Engineering conducted a webinar on 20th March 2021 on the topic "Recent trends in Civil Engineering Industry" by Mr. R Balaji, Deputy General Manager, Quality Assurance, Kamachi industries Ltd.

He started the session with introduction to recent trends in Civil Engineering Industry. He explained onnew methodologies in the field of design in Steel Structural Elements.

MAGAZINE

STUDENTS CORNER

ARTICLE NO: 1

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Year /semester: III/ V

Shear wall is a structural member used to resist lateral forces i.e parallel to the plane of the wall. For slender walls where the bending deformation is more Shear wall resists the loads due to **Cantilever Action** and for short walls where the shear deformation is more it resists the loads due to **Truss Action.**These walls are more important in seismically active zones because during earthquakes shear forces on the structure increases. Shear walls should have more strength and stiffness. When a building has a story without shear walls, or with poorly placed shear walls, it is known as a soft story building. Shear walls provide adequate strength and stiffness to control lateral displacements. Shear walls perform dual action that is theyas lateral as well as gravity load-bearing elements.

Concrete Shear Wall:

Concrete Shear Wall Concrete Shear wall buildings are usually regular in plan and in elevation. Shear wall buildings are commonly used for residential purposes and can house from 100 to 500 persons per building. Horizontal and vertical distributed reinforcement (ratio 0.25%) is required for all shear walls.

Strength of Shear Walls:

The strength of a wall system depends on many factors including the strength of the sheathing; the type, size, and spacing of the fasteners; the panel aspect ratio (ratio of long to short dimension of shear panel); and the strength of the studs. Because of these variables, the design strength of shear walls is usually based on tests of full height specimens.Shear walls that are perforated with openings are called coupled walls. These walls act as isolated cantilevered walls connected by coupling beams (also called spandrel beams or lintels) designed for bending and shear effects.