

A view to remember

*Annual Day Celebrations and Dhanush Fest in Feb.
End Semester Exams for second, third and fourth year
students.*

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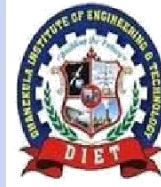
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Dhanekula Institute of Engineering and Technology



Civil Info

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You have
been found
guilty of
indulging in
unnatural
practices
under one
of London's
most
beautiful
bridges.

The main objective of this paper is to evaluate the seismic response of buildings of typical reinforced concrete frames when concrete starts to deteriorate gradually and to make a comparison between the base shear and the displacement at different stages of earthquake loading. Typical 5, 15, 20 and 30-storey reinforced concrete frames have been designed for seismicity according to the recently adopted seismic code in Abu Dhabi, ACI 318-08/IBC 2009 code. A pushover analysis has been performed to these four buildings by using SAP 2000. Twenty-four models have been created (6 models for each building) by decreasing the concrete strength gradually from 4000 psi (281 kg/cm²) to 1500 psi (105 kg/cm²). This is to simulate the effect of harsh environment on the strength of concrete in existing buildings.

Source: American Concrete Institute (ACI)

Dhanekula Institute of Engineering and Technology

Guest Lecture on Planning and Construction of Different types of Roads

On 16.02.2016 a Guest Lecture on “Planning and Construction of Different types of Roads” given by Dr. Srikanth, Senior Engineer, BSCPL, in Auditorium, Dhanekula Institute of Engineering and Technology.

Planning with respect to road construction takes into account present and future uses of the transportation system to assure maximum service with a minimum of financial and environmental cost. The main objective of this initial phase of road development is to establish specific goals and prescriptions for road network development along with the more general location needs. These goals must result from a coordinated effort between the road engineer and the land manager, forester, geologist, soil scientist, hydrologist, biologist and others who would have knowledge or recommendations regarding alternatives or solutions to specific problems. The pattern of the road network will govern the total area disturbed by road construction.

Global Road Technology is proud to be a recognized industry leader in the road building and construction industry, and carries the torch of this proud engineering tradition forward in modern times. They are experts in both traditional construction methods as well as the application of their own cutting edge techniques that rely on soil stabilization and dust control. Let’s take a look at several of the traditional types of construction techniques and materials in use:

Asphalt – One of the most popular types of construction ever since its inception in the early 1920s is asphalt paving. In this construction technique, a layer of asphalt is laid on top of an equally thick gravel base. Advantages of this form of road construction are that the pavement produces relatively little noise, its relative low cost compared to other materials, and that it is relatively easy to repair and maintain as well. However, asphalt is known to be significantly less durable and strong than most other choices, and isn’t the best for the environment either.

Concrete – Concrete is another popular choice for roadways, though it is typically only used for local roads and not other types of construction. There are three major types of concrete road surfaces, JPCP, JRCP, and CRCP; the distinguishing feature between the three being the joint system that is used to help prevent cracks from forming. Concrete is more long-lasting than asphalt and significantly stronger as well, but is quite expensive to lay and maintain.

Composite – Composite materials are often used in types of construction that are more related to maintenance, recycling, and rehabilitation. Composite materials are combinations of both asphalt and concrete, and are typically employed in one of two methods. Asphalt overlays literally are placed over a damaged surface, or alternatively pavement may be cracked and sealed instead, forming a true new surface.

Recycling – There are three typical types of construction techniques related to recycling the surface of distressed or damaged pavement. Rubblizing, Cold/Hot in-place Recycling, and Full-depth Reclamation. Rubblizing involves reducing the road to gravel and then applying a new surface, both hot and cold in-place recycling relies on using bituminous pavement to reinforce the road (at different temperatures and admixtures, of course), and Full-depth reclamation involves both total pulverization and the addition of binding agents or other additives.

Bituminous Solutions – Bituminous and other temporary solutions are types of construction that are only suitable for use on very low-traffic thoroughfares. Chipsealing techniques, thin membrane surfacing, and Otta sealing are all examples of bituminous surface options. These are all more commonly employed as sealing coats or finishes than as full road surfaces.

