Long Term Dry and Wet Effects on the Engineering Behavior of Subgrade Soil with High Amount of Soluble Salts using Low Cost Stabilizers

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ABSTRACT: The performance of pavements depends upon the quality of subgrades. A stable subgrade and properly draining pavement help to get higher performance of pavement. The CBR values obtained with the addition of 6% RHA, 6% kaolin, 6% sludge show a significant increase in the CBR value up to 95% relative modified proctor increases by about (48%, 66.1%, 36.1% and 38%) for the (2.5% CaCl$_2$, 5% lime, 6% RHA, 6% kaolin) respectively. While the CBR value of soil with the (5% saw dust) decreases to (29%). The soaking test results when the modified CBR test is conducted, the results of soaking showed reduction in both (CBR) value and (T.S.S) with the time.

Keywords: Strength, Rice husk ash, Total soluble salts, Durability, Calcium chloride

3-D Underflow of a Sluice Gate at a Channel Inlet; Experimental Results and CFD Simulations

Original Article, D75
Calomino F. and Lauria A

ABSTRACT: The underflow of a sluice gate is well known when the gate is set into a channel of the same width (2-D underflow), while thereafter discharge coefficients in a more extended range of relative openings were computed for use in the practice.

Keywords: Channel Inlet, Sluice Gate, 3-D Underflow, Discharge Coefficients, CFD Simulations
Abstract: Water surface level regulation and deviation of a constant value of discharge into the side channel, is the basis of the intake operation. By designing the intake discharge control, it may be possible to measure and control the intake discharge precisely, installing a counter and a valve at the side channel.

Keywords: Cylindrical weir-gate; Over-under flow; Intake; Orifice.

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Abstract: Nowadays, Infill is widely used in retrofitting structures. Low sensitivity to construction quality is one of the advantages of Infill. The experiments on the reinforced concrete of Infill indicating the effect of friction sliding fuse allows one to calculate the energy dissipation. The work can be extended to the dynamic analysis and increases the area of the hysteresis loops of the compound frames and consequently increases energy absorption.

Keywords: Concrete Infill, Frictional Sliding Fuse, Retrofitting, Strengthening.

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Abstract: Modernism, as one of the main achievements of man, has been the source of various changes in the spatial structure of urban spaces. The changes brought about by the modern urban space of squares can be revitalized, and defects in modernist modifications of squares can be decreased.

Keywords: Structural Elements, Square, Tradition, Modernism, Naghsh-e-Jahan, Toop-khaneh.

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Abstract: An evaluation of the nonlinear static analysis for special moment resisting frames is presented. The results of the analysis are compared with those obtained from experimental tests and other analytical methods. The study highlights the importance of considering nonlinear behavior in the design of moment resisting frames.

Keywords: Nonlinear Static Analysis, Special Moment Resisting Frames.
In order to prevent extensive devastation and death toll in strong earthquakes, rehabilitation of existing structures was ... in conservative estimates implying that this method should be considered more carefully when used for taller buildings.

**Keywords:** Nonlinear Static Method, Special Moment Resisting Frame, Seismic Rehabilitation, Performance-Based Design

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In this paper a comparison was done between the coefficient of behaviour of steel moment frame systems with thin steel ... on spectral capacity diagrams shown that the steel shear walls had better performance than divergent braced walls.

**Keywords:** Coefficient of behaviour, Thin plate steel shear walls, Divergent brace.

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Sistan River Being located on the tail water of Helmand's very extensive basin, it is prone to deposition of fine ... weight in this interval is about 20% of the whole accumulated sediment in situation which the gates are completely open.

**Keywords:** Sistan River, Niatak Spillway, Erosion, Sedimentation, HEC-RAS model.

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Shaft spillways are used where there is not adequate space to build other types of spillways to convey flood water from ... using blade-vortex breaker and the increase in spillway discharge coefficient with sharp edge was more than a wide-edged.

**Keywords:** Vortex, Shaft Spillway, Vortex Breaker Plate, Hydraulic Model.
ABSTRACT:
Due to the very high losses caused by breakage of dams, especially with regard to the dams that are constructed in the areas with high population density, it is necessary to maintain readiness for dealing with crisis situations, the separation of risk areas is essential.

Keywords: Dam Break, Flood Zoning, Farrokhi, HEC-RAS

ABSTRACT:
Consciously design of the buildings and human residences especially dwelling, with due attention to energy problem can result in creating livable places, which impact positively on quality of life and each other have closer relationship that to this manner, man psychic comfort condition give to very extents.

Keywords: Sustainable Development, Smart Building, Design Purposefully

ABSTRACT:

Keywords: