Heave Behavior of Granular Pile Anchor-Foundation (GPA-Foundation) System in Expansive Soil

Granular Pile Anchor (GPA) is one of the innovative foundation techniques, developed to mitigate heave of footing in expansive soil. This study presents an empirical model for predicting heave behavior of a Granular Pile Anchor-Foundation (GPA-Foundation) System as a function of the above mentioned three independent variables with coefficient of regression of (R2 = 92.3 %).

Keywords: Expansive Soil; Sand; Heave; Granular Pile Anchor (GPA); Foundation; PLAXIS.
Abstract Evaluation of Plan-Irregular Buildings Subjected to Bi-directional Seismic Loading

The present paper aims at evaluating the response of three-dimensional buildings with in-plan unidirectional mass unbalance subjected to bi-directional seismic loading. The predictions are performed using both exact and approximate methods for computing the seismic response of buildings. The results are compared to the prediction using a novel collapse criteria. The performance of the new criteria is also compared to the conventional fragility curves. The new method is shown to be more effective than the conventional approach.

Keywords: Torsional Buildings, Probabilistic, Collapse, Plan Irregularity, Low-Rise Buildings
ABSTRACT: The ecosystem of Urmia Lake is almost close ended and the water of rains and
Keywords: Urmia Lake, Ecosystem, Sewage, Heavy Metals, Artemia, Environment.
Structural Identification of Bridges (Case Study: Mazandaran, Iran)

ABSTRACT:
Throughout more than thousand years of human civilization, bridge and bridge architecture has been very important. The riverbed, soil strength, and the amount of water across it are all natural factors in the design of bridges.

Keywords: Bridge Architecture, Design Method, Material Type, Constructing Technique, Natural Factors.
Estimations of Sediments in Mahabad Dam Using Artificial Neural Networks and Comparing the Results with Hydrometer Approach

A deposition phenomenon is considered as one of the hydrometer processes which have the ability to influence the most of the hydrometer processes with regard to erosion. The equations show that the multi-layer networks in prognosticating a measure of the sediments is superior to hydrometer method.

**Keywords:** Artificial Neural Network, Hydrometer Method, Nero solution, Sediments.

Usage Alteration of the Nazlu-Chay River of Iran due to Excessive Exploit of Its Material Includes Sand and Gravel in the Lake Urmia Catchment
ABSTRACT:

From Ancient times, rivers were so essential for human beings and they had a major role in the formation of societies and ... river. Some direct influence of exploits includes: river hydraulic alteration, sediment place and river scope morphology.

Keywords:

Environmental on sequences, River ecology, Sand and Gravel exploit

ABSTRACT:

The development of transportation in the large cities needs some new tunnels to be designed and constructed nearby ... the internal forces variations in the longitudinal section of sewage tunnel are more than circumferential ones.

Keywords:

EPB Shield, 3D Numerical Modeling, Tunnel Interaction

ABSTRACT:

Landfill is one of the oldest and most widely used methods of waste management. Due to the special geographical and ... the option that have best condition according to weight was given is chosen as the final location of the landfill.

Keywords:

Solid waste management, Site, Babol, Boolean logic Method, Kardijkola

ABSTRACT:

Urbanization and urban development builds large amounts of impervious areas, stopping the infiltrating of rainfall into ... of different runs indicated that there is a proper convergence of MUSIC-GA results toward the global optimal solution.

Keywords:

Urban stormwater, Water sensitive urban design, MUSIC, Constructed wetland, Genetic algorithm

ABSTRACT:

Evaluation of Stability of Spillway Gable Roof of Nazlu Dam via Slide Software
ABSTRACT:

The most prominent issue in the civil projects such as construction of dams is providing stable steeps of rocks and ... instead the desired steep will be provided and those lifted material will be used in the body construction of the dam.

Keywords: Limit Equilibrium Methods, Nazlu Dam, RDQ Index, Stability of Slope

ABSTRACT:

The transient pressure caused by water hammer events is sufficient to fracture pipes and some equipment, and for this ... pressure fluctuation it is advisable to choose pipes with most similar elastic modulus and one greater diameter size.

Keywords: Elastic modulus, Pipe line, Transient pressure, Water hammer

ABSTRACT:

Pre settled pools were most important elements in water purification process. Because of enormous cost of making these ... laboratory results as well as capacity of this model to predict distribution of sediment profiles in pre settled pools.

Keywords: Pre Settled Pools, Profile of Flow Velocity, Distribution of Sediment Concentration

ABSTRACT:

The chaotic behavior of monthly precipitation time series is investigated using the phase-space reconstruction technique ... value of correlation in daily scale is an indication of the existence of chaos in the water flow of Baranduz Chay River.

Keywords: Baranduz Chay River, Chaos Theory, Correlation Dimension, Delay Time

ABSTRACT:

Comparative Hydraulic Simulation of Water Hammer in Transition Pipe Line Systems with Different Diameter and Types

ABSTRACT:

Criteria of Passive Defense in Subway Stations
ABSTRACT:
DEFENSE is an integrated concept, which includes both active and passive defenses. The effects of the war include heavy damage to infrastructure and the economy, the destruction of human life and property, and the loss of human resources. In the context of modern wars (i.e., the citizens' security will increase, and the defensive power and national security will enhance subsequently.

Keywords: The Subway, Designing, Passive Defense, Threat, Architecture.

ABSTRACT:
Population Changes are important for any planning. Since all eco-social planning are designed due to the changes in the population; therefore, planning in this area is of great importance. The main factors that affect the changes of the population are: the increasing of population in Iran (in 2013, it was 9.01 million) and the reduction of the percent of employers ratio (2013, 5.6 million). Since all workforce are unemployed, this affects the national economy and the related services. The percentage of unemployed people has a high trend.

Keywords: Population Change; Planning; Statistics; Population Structure; Ardabil City

ABSTRACT:
Effluent generally includes nutrient elements like nitrogen and phosphorus. Its discharge to water resources leads to an increase in the growth of different types of algae, which can cause various problems. In order to protect water resources and aquatic life, it is necessary to decrease the amount of phosphorus and nitrogen as much as possible before discharging of effluent. In this research, the performance of Phragmites australis and Typha latifolia aquatic plants in removing nitrate and phosphate from the treated municipal wastewater was evaluated. The results obtained in this research showed that the rate of nitrate and phosphate removal by Phragmites australis and Typha latifolia aquatic plants was: 81.43, 92.66, 83.66, 74.26 percent respectively and average reduction of Nitrate and phosphate were 81.43, 92.66 and 83.66, 74.26 percent respectively.

Keywords: Nitrate, Phosphate, Phragmites australis, Typha latifolia, channel, Wastewater.

ABSTRACT:
At present, water waste has become a global concern. On the other hand, the amount of sweet water on the earth is fixed. Therefore, it is necessary to determine the amount of leakage in the water supply networks and to prevent water waste. The water waste can be identified by applying the barometers placement to the water supply network. The barometers are expected to be placed in a suitable manner around the network. In this research, an intelligent model is suggested to determine the amount and location of leakage in the water supply network when several simultaneous leakages have occurred, and the accuracy of the model is verified by the results.

Keywords: Leakage Detection, Barometers Placement, Neural Network, Bat Algorithm.
ABSTRACT:

The unorganized status of housing in all around the world was driving force of emphasizing on “adequate housing right” as human right. This right is classified as right of freedom, human security, and shelter. This right has the importance in the world and a part of the human rights charter. Based on this, the necessity of housing issues has been discussed by many countries of the world including Iran. In Iran, there are many regulations on housing and shelter, but finding the right level of these regulations is important. In this paper, the extent of the competence of these regulations is compared with the extent of the housing needs of the people in Iran. The results of this paper will help the authorities and policymakers in determining its policies and strategies to provide the necessary conditions for housing by comparison of these regulations and the extent of their competence in accordance with housing indicators.

Keywords: Housing, Physical Indexes, Human Rights, Shelter.

ABSTRACT:

Nowadays cities benefit from two geographical (natural, social, and economical environments) and artificial (man-made, and social organization of the society) environments. Among these environments, the climate and topography play a great role in the city atmosphere. In this respect, the green roofs can be good means for reducing these problems of Tehran. These are roof spaces covered with vegetation, which can be used in the agriculture, leisure, and energy conservation. Using the green roofs is essential for the city of Tehran for several reasons. Considering the above reasons, this paper will study the potential of nature in improving the physical conditions of Tehran as one of the mega-cities of the world.

Keywords: Green Roof, Roof Garden, Drain, Artificial Filter, Damp-Proof Coarse

Tamin Village is a special place of importance in the villages of Zahedan situated in the south-east of Iran. In this village, the architectural style and the old buildings have their own characteristics and are the most attractive architectural style of the Tamin area. The Tamin structures have shown a remarkable adaptation to the surrounding nature, and the historical grounds and the landscape around the village are closely related to the architecture of the village.

Keywords: Tamin Village, Dast Kand Architecture, Completion Nature

Tall buildings are defined as signs and certain points in urban view, if located and constructed properly, and their architectural elements can reach a high degree of impressive indicators in determining its policies and strategies should be prioritized to tall buildings which shapes an optimal urban view.

Keywords: High-rise Buildings, Urban Landscapes, Impressive Indicators, ANP.