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Abstract: The Saudi stock market is regionally and globally important due to the country’s economic position as the world’s largest oil producer and its inherent socio-political role as a major world economy. Stock market prices are one of the main factors affecting the national economy, indicating economic strength and attracting investment. This paper inspects the best autoregressive integrated moving average (ARIMA) model to forecast daily stock market prices in Saudi Arabia. The results indicate that the optimum model is ARIMA (4, 4, 0, 0), due to the ACF having an exponential deterioration and the PACF having a spike at lag12, which is an indication of its being the best model to forecast Saudi Arabia stock market prices from 2000 to 2018. The least Akaike Information Criterion (AIC) value was used to select the appropriate model from 25 tentative ARMA models. The chosen model is the first one, AIC = -5404104. The selected ARIMA (4, 4) (0, 0) predicts the future values of time series (stock market prices) with 95% prediction intervals for the next year. It is important to focus on the improvement and development of other models to improve the forecasting process and improve the ability of companies to plan. The results expected by the model indicate economic strength in the near future, which motivates the economic situation of the state and increases confidence in it.

Keywords: Bayesian Information Criterion, Akaike Information Criterion, Saudi Stock Exchange (Tadawul), Stock Prices, Prediction Models, Forecasting.

References:
selected site management factors contribute significantly to the prediction of successful project implementation. This findings were justified by the following statement; proper health and safety management had the greatest impact on probability of successful project implementation with a probability of 99.4%, cost management had a probability of 97.4% while labour management had a probability of 83.9%. The second highest probability of successful project implementation was material management with 98.9% while information management had a probability of project success of 93.6%. Finally, a well-defined site management system was suggested to aid construction project managers in achieving control over the flow of basic resources (personnel, finance and materials) and processes, eased information exchange and increased customer and stakeholder satisfaction (as a result of meeting the project objectives).

Keywords: Construction Site Management, Project Management, Project Implementation.

References:
15. Wong et al. (2014). An integrated 5D tool for quantification of construction process emissions and accident identification. The 31st international symposium on automation and robotics in construction and mining (p. 5), Hong Kong: Hong Kong Polytechnic University.

Authors: Blake MacKenzie Burns

Paper Title: Darksort: A New Linear Sorting Algorithm

Abstract: This is a new paper on the algorithm "Darksort". It is a linear sorting algorithm that operates in O(n) time and space complexity. It uses advanced data structures to be highly applicable in many Computer Science uses. Comparisons to other linear sorting algorithms are included.

Keywords: Computer Science, Data Structures, Algorithms, Sorting

References:

Authors: Kiambigi, Maina, Gwaya, A.O, Koteng, D.O

Paper Title: Effects of Different Fine Aggregate on Concrete Strength

Abstract: Fine aggregate has been extensively used in the construction industry as a key component of concrete production. Although river sand is one of the major sources of fine aggregate, different sources exhibit different properties by virtue of the geological formation of the drainage basin. Further, the use of river sand as the source of fine aggregate has resulted in over-exploitation leading to depletion and environmental degradation. This has led to exploration of alternative sources to safeguard depletion and reduce the negative impacts on the environment. This research was conducted on a variety of river sands and alternative fine aggregates to assess their suitability for concrete manufacture. A quantitative experimental approach was adopted to test the Physical, chemical and mineralogical properties of fine aggregates sourced from Machakos, Mwingi, Naivasha and Kajiado and the resultant concrete strength after 7, 14 and 28 days recorded. The fineness modulus of all the material samples ranged from 1.92 to 3.66, specific gravity 1.73 to 2.27 and silt content 2.06% to 11.9%. All the samples fell within the overall grading envelope. The silicon dioxide concentration ranged from 65% to 80%, Aluminium oxide 9% to 19% and Calcium oxide 1.3% to 2.5%. Machakos sand had the highest Silicon dioxide and calcium oxide concentration of 80% and 2.5% respectively, while quarry dust had the highest aluminium oxide concentration of 19%. It was observed that concrete produced from natural river sand obtained from Mwingi, Kajiado and Machakos achieved strengths of 41.899N/mm2, 37.173N/mm2 and 33.645N/mm2 respectively comparative to 30 N/mm2 target characteristic strength after 28 days. On the other hand, concrete produced using fine aggregates obtained from Mlolongo rock sand,
Naivasha sand and Milolongo Quarry dust achieved strengths of 28.682 N/mm², 28.411 N/mm² and 27.661 N/mm² respectively falling short of the requisite compressive strength after 28 days.

Keywords: Concrete Mix Design, Concrete Strength, Fine Aggregates.

References:

Authors: Harshal Chhadwa, Glynes D’ouza, Swaradi Godane, Pooja Sharma

Paper Title: Audio Steganography using RSA Algorithm

Abstract: A significant amount of research is done to improve the effectiveness in data hiding. Audio steganography is an art of hiding secret information inside an audio file, such that the representation of audio file won’t be altered. Steganography is one of the safest ways of secret data transmissions in today’s digital world. In this paper, large embedding capacity steganography method is proposed using LSB substitution. Alongside, the power and security of the RSA cryptosystem is based on the fact that the factoring problem is “hard.” The public and private keys are related mathematically, but the parameters are chosen so that calculating the private key from the public key is either impossible or prohibitively expensive. Thus two level security and robustness is achieved. The original and stega-audio signals show resemblance hence there is minimum chance of detecting the secret message hidden in the stega-audio. MATLAB is used for proposed algorithm and proposed results have been shown.

Keywords: Cryptography; Steganography; LSB; RSA; Stega-Audio.

References:
9. Mohsen Bazyar, RubitaSudirman, “A New Method to Increase the Capacity of Audio Steganography Based on the LSB Algorithm,” University Teknologi Malaysia, 81310 UTM Johor Bahru, Malaysia.

Authors: Sonali S. Thangan, Ankit R. Mune

Paper Title: Review on Distinctive Image Features from Scale-Invariant Key-Points

Abstract: This paper presents a method for extracting distinctive invariant features from images that can be used to perform reliable matching between different views of an object or scene. The features are invariant to image scale and rotation, and are shown to provide robust matching across a substantial range of affine distortion, change in 3D viewpoint, addition of noise, and change in illumination. The features are highly distinctive, in the sense that a single

References:
1. Review on Distinctive Image Features from Scale-Invariant Key-Points
A feature can be correctly matched with high probability against a large database of features from many images. This paper also describes an approach to using these features for object recognition. The recognition proceeds by matching individual features to a database of features from known objects using a fast nearest-neighbour algorithm, followed by a Hough transform to identify clusters belonging to a single object, and finally performing verification through least-squares solution for consistent pose parameters. This approach to recognition can robustly identify objects among clutter and occlusion while achieving near real-time performance.

**Keywords:** Extracting Distinctive, Approach, Real-Time Performance, the Features Are Highly Distinctive

**References:**