

## ABSTRACTS

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### **An Analysis of Poverty Line Measurement and Poverty – Eradication Policies in Yazd Province**

The aim of this paper is investigation an analysis poverty line measurement and determination in Yazd province and presents poverty-eradication policies. The descriptive-analytic methodology is used. According to this study, the proportion of the 10 percent of the richest to the 10 percent of the poorest in urban and rural areas is 11.04 and 18.16 respectively. These proportions are 15.5 and 13.4 respectively for the whole country. Statistics show that distribution of income in urban and rural societies of Yazd province is better in comparison with of whole country. About 37 percent in urban society and 24.6 percent in rural society of Yazd province live under poverty line. Results of Tiasen and Kakavani models also indicate that if above poverty line in urban and rural areas give 5.6 and 1.9 percent of their expenses to under poverty line of urban and rural areas respectively, all living under poverty line will close to poverty line. In addition to above mentioned solution, using negative income tax policies, developing production properties of groups, transformation in income distribution and improvement of job opportunities can reduce poverty and inequality. Other wise, not only pover and unequality doesn't decrease but also it became more deeper and greater.

**Keywords:** Income Distribution, Poverty, Poverty Line, Poverty- Eradication Policies, Yazd Province.

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### **The ENSO Relation WithWintery Atmospheric Circulation Patterns in Iran**

The various atmospheric circulation patterns are caused the different conditions of weather; for example, the frequency changes of occurrence of atmospheric circulation patterns weather types are caused the precipitation patterns variations, therefore, studies on weather types can used as a criterion for analysis of precipitation patterns variations. Precipitation variability is one of the important factors which controls natural and economical systems. This effect is more significant in arid and semi-arid regions such as Iran. This paper, studied relation between circulation patterns and ENSO index. In order to classification of circulation patterns, the data of 500 hpa geopotential height and sea level pressure were taken from NCEP data center at the statistical period of 1961-2003. For classification of daily weather types, it is used principle component analysis and clustering method. Finally, 8 weather types were recognized for Iran on winter season time. In order to recognition of relation between frequency of various weather types and warm and cold phases of ENSO, the monthly data provided from NCEP and then frequency of weather types were calculated in warm, cold, and neutral phases. Conclusions reveal that Mediterranean low-pressure, South polar low-pressure, Eastern high-pressure, Northern high- pressure and Eastern European high - pressure and also joining Siberian high - pressure with the European high - pressure in the El Nino phase have more frequencies, Whereas occurrence frequencies of the Siberian high - pressure and central high - pressure systems are more at the La Nina periods.

**Keywords:** Atmospheric Circulation Patterns, Clustering, ENSO, Principle Component Analysis, Weather Types, Iran.

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### **Optimum Locating of Urban Extension Directions by Enjoyment of Geographic Information System (GIS) (Case study: Marvdasht City)**

In urban extension there are various intentions and opposed objects (for example: Land setting aside for urban extension and using agricultural farm for building), so just a direction finder glance to all efficient factors which affected on urban extension, can choose the best lands in the future. Therefore recognition and locating proportional land is one of the most important decisions of urban-planners. The main goal of this research is presenting and appropriate locating for Marvdasht urban extension for posterity. For this purpose GIS, a powerful and careful tool, was used for producing and analyzing maps and multiform layers of Marvdasht land use.

At first, 10 indices, natural and mankind guidelines, such as, slope direction, land capability, torrential lands, fault, river, road connection net, railway connection net, industries, rural points of cities suburbs, power transition lines were introduced, prepared and edited. After wards, by using models and analytical functions of GIS (such as: proximity, bounds, overlapped, ...) case study limits in each indices and criterions were created and optimum directions maps of physical extensions of each layer were determined. After that, standardization operations and putting layers together was done by dignity ranking, overlapped and map combination methods, Finally, after arranging the made maps, the last map consisting of appropriate directions of Marvdasht extension during the next years was chosen and demonstrated.

**Keywords:** Urban Extension, Locating, Optimum Directions, Dignity Index, Marvdasht, Geographic Information System (GIS).

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### **Quantitative Analysis of Hydro-Geomorphology Problems of the Likvan Chay Basin with Emphasis to Soil Erosion and Sedimentation (South - East of Ardebil)**

The Likvan Chay basin with 352.72 mm annually precipitation and 5.36% gradient is located on the south-east of Ardebil province. Based on the active tectonic ( $B_s=2.23$ ,  $V_f=1.4$  &  $0.33$ ) vast extension of potentially sensitive formation, impact, runoffs leads to intensive soil erosion. The result of drainage system morphometric, coefficient and geometrical shapes of basin and evaluation of sedimentation with different formulas such as Arnolds, Fournieh, Sepaskhah, ... indicate the rate of soil erosion very numerous in the basin. The average erosive caused by rain by results of mentioned formulas is 291.51 ton/ha/y and the total annually erosion of the soil in the basin is estimated 22446270 ton/ha/y which indicates high rate of soil erosion. Also the result of some climatic indices such as hydrothermal coefficient and soil wetness' fluctuation showed the basin very prone to gullification and runoffs erosion. The average of PH is 6.14 which desired to cultivation.

**Keywords:** Likvan Chay Basin, Soil Erosion, Sedimentation, Basin Management.

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### **The Ancient Quality of Cities, Manifestation of Material and Spiritual Culture of Islamic Cities Case: Khaf Ancient Quality**

A city is a kind of appearance of culture and the ancient quality shows its material and spiritual manifestation. So, all Islamic cities enjoy ancient quality with similar elements which have the same Islamic identity, cultural management and historical background. Khaf is a manner of these Islamic cities in spite of its geographical situation (located at the end part of the country in the east and geographical isolation) has been counted among a center of culture in the past. Although ruined caused by the war and earth quake and recently decade changes, has severely influenced on details and ancient quality attachment, but this region has five quarters named, Mian- Deh, Paein- Deh, Sar- Deh, Ghaleh Bala, Salar- Bashi with specific parts like = Ghilich- Khani citadel, Jame mosque, Khatib mosque, Balal mosque, Sheikh Zein- Addin mosque, Agha Hossein cistern, Balal mosque, Khatib mosque and Khajeh Yar belonged to the Timurids dynasty. Some places which transfer cultural experiences arising from Islamic countries collaboration can name: Hafez Abrou shrine, Khafi Ahmad aged, Hoor matron and Nour matron, Khajeh Yar, historical monuments such as= Qhoreishi house (the Qajar dynasty), Balal mosque drinking fountain, Jame mosque, Sheikh Zein-Addin and Bazaar. Therefore, this research tries to acquaintance and introduce khaf ancient quality as a Islamic city building. For this reason, documentary and enumeration methods of the ancient quality is considered. The study results show the Khaf ancient quality with regard to construction as a Islamic cities model which reviewed to finding the missing link of the past collaboration between Islamic countries.

**Keywords:** City, Ancient Quality, Khaf, Islamic Country, Material and Spiritual Culture, Culture.

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### **Seasonal Rainfall Forecasting Based on Synoptical Patterns Using Phasic Sets Theory**

In this research, we have used from Phasic sets theory for seasonal rainfall forecasting from Dec to May in Razavi Khorasan, North Khorasan and South Khorasan Provinces. This method includes three steps. In the first step, relationships between synoptical patterns variation including Sea Level Pressure (SLP), Sea Surface Temperature (SST), Sea Surface Pressure Difference ( $\Delta$ SLP), Sea Surface Temperature ( $\Delta$ SS<sub>t</sub>), 1000 millibar Surface, Air Temperature at 850 hpa, Geopotential Height at 500 hpa and Relative Humidity at 300 hpa with average precipitation with average precipitation are investigated. In the second step, model was calibrated from 1970 to 1992. Sensitiveness analysis is used for obtaining the best phasic rules structure and membership functions. In final step, rainfall prediction is performed from 1993 to 2002. Results showed that phasic sets theory can successfully predict amount of the rainfall.

**Keywords:** Rainfall Forecasting, Synoptical Patterns, Phasic Sets Theory.

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### **Analysis and Classification of Factors in Formation and Development of Gullies (Shakhen Drainage Basin, South Khorasan Province)**

Gully erosion phenomena are very common in semi- arid climate. They affect large areas with different morphological, pedological and climatic characteristics. The amount of soil wasting due to gully erosion has become a very serious problem in the recent decades as it was associated to remarkable depletion of cultivated land in Shakhen drainage basin. Two main types of gullies were identified on the basis of their morphological and hydraulic geometry characteristics: (1) Ephemeral gullies which generally develop on low gradient slopes; and (2) Perennial gullies, formed by deep erosion processes. The objectives are (1) to determine the spatial distribution of these gullies in the study area, (2) to measure their morphological and topographical characteristics and (3) to appoint the factors which are led to their reconstruct and development and transformation.

In order to investigate the main causes originating the different types of gullies, environmental conditions data such as: physiographic, geology, soil characteristics, hydrology and land use were collected in the field. The hypotheses on the mechanisms responsible for both ephemeral and perennial gullies development and for their different characteristics are discussed. This study investigates these types of gully under semi - arid climate in the small region of Shakhen drainage basin on South Khorasan province. Field investigations on gully morphology and its constructing processes were carried out in three regions from the study area, representative of different geo-environmental conditions. It is suggested that the gully on the region No.1 land system has been more active and, though initiated by overland flow, has developed to a stage where seepage at the base and banks is now the main process. In the study regions, erosion control efforts should be based on dense ground vegetation to reduce flow velocity on the up land to reduce flow volumes on the area with gully erosion.

**Keywords:** Ephemeral Gully, Perennial Gully, Shakhen Drainage Basin.

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### **Assessment of Qeshm Island Ecotourism Capabilities with Use of SWOT Management Strategy Model**

This paper is done with the goal to study ecotourism capabilities and compile the best strategies for flourishing and improvement of tourism management performance.

Qeshm island, as the biggest island in Persian Gulf, shows valuable natural, cultural and ethnological potentials, among which Harra Sea Forest, unique animal species, beautiful costal views, historical remains such as Portugeses fortress, Naderi castle, Kherbes cave, and many other remains of Safavid, Sassanid and Samanides era, special culture of native people, clothing, language, customs and house architecture (Laaft Village) can be mentioned.

To analyze the practical planning with the aim of presenting managerial course, this paper applies SWOT planning strategy model which is based on the recognition of strengths and weaknesses , (Internal factors) and opportunities and threats (External factors) and the results are presented in brief analytical tables of Internal and External factors.

The final analysis of these findings are incorporated in quantitative strategy planning matrix tables and final results show that strategy model 5 (WO) with 16.36 points, with ultimate economical use of the arrivals of tourists in suitable seasons of the year with preservation of the island values and strategy model 5 (SO) with 15.65 points with emphasis on clear cultural interactions with other countries are the best strategies to introduce the capabilities and cultural station of the island people and attract more and more local and foreign tourists.

**Keywords:** Ecotourism, Qeshm, Management Strategy, SWOT.