Spatial Analysis and Location of Firehouse of Noorabad City Using GIS

J. Mohammadi[1]

Abstract

In the past decade we encountered the population growth of our country, resulted in demand growth. Perhaps there are not much service centers in this city, but the efficient distribution of these centers is important. One of the service centers which has a significant role on city and is safety insurance for human life, is firehouse center. Fast and on time access of firehouse vehicles to the accident location is very important, because on time access of vehicles to accident location results to lesser damage. On the other hand, this on time access to accident location is related to efficient distribution of firehouse centers. In order to evaluate the current situation of firehouse centers regarding fire accidents, the Noorabad city was chosen as the study issue, and by using GIS function, network analysis and multiage analyses of Thiessen, the current situation of Noorabad firehouse centers were studied. After recognizing the improper distribution of these centers using AHP model and index overlaps, the proper location of firehouse centers of Noorabad city was identified using GIS software. The current research method is descriptive-analytic. The required information of this research were collected from field observation, comprehensive design study and descriptive data of Noorabad city, 1.5000 maps of current situation and also field observation.

Keywords: Geographical Information System (GIS), Analytical Hierarchy Process (AHP), Noor Abad, Site selection, Fir Fighting Station.

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Environment Postion in Modernity and Its Countenance Challenges with Emphasis on Iran Cities

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Abstract

This paper is dealing with environmental position in modernity and its countenance challenges. Beacause in past ages human and nature had deep relationship. They were considered as a unified subject. They could keep on their lives peacefully in passin of time but with recent advantages in many aspects, this realationship has been one sided. By considering nature as an object for benefit, humans just use it for economic beneficiary. Experiences show that the outcomes of this type of observation are threatening the nature and damage it. It is common that this situation threatens life cycle and live and dead creatures. Indeed why this situation has been created, reasons of which are offered in it. What is the realationship between intelectual thought and destroying the environment? Although nowadays human knows a lot about consequences of destroying nature but he keeps on destroying it voraciously.

Keywords: Environment, Modernity, Challenges, Nature.

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A Comparative Study of Urban Space Effect on Rate of Citizen Participation (Case Study: Neighborhoods of Tabriz

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Abstrac

The aim of this article is to study the urban space effect on the rate of citizen participation in the neighborhoods of Tabriz. Method of study is documental and based on survey. Data was collected by using questionaire and research. The target populations are the households living in the city of Tabriz in 1385 and a statistical sample of 450 households is estimated based on the Cochran formula. Method of appropriate class with systematic random sampling is used and samples from old and new areas with different local values and cultures such as Valiasr, city centre, Baghmisheh, Yaghchiyan, Shahrake Emam and Silab Qushkhanh are selected. Data collected for analysis of descriptive and analytical statistics are used in SPSS and Lisrel software. The reliability of the research is based on calculating Cronbach's alpha 0.81.

The results of the study indicate that the citizen participation rate in department of urban affairs is higher than moderate. But comparing the different neighborhoods in the flactuation and dedication shows that Shahrake Emam is highest and city center is the lowest. Also the variables such as sex, type of ownership, residence area, education, housing, living history and sense of belonging can affect the level of citizen participation. Among these factors, a sense of belonging, education and living history is the most important factors that influence the citizen participation.

Keywords: Urban Space, Participation, Neighborhoods of Tabriz.

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An Analysis of Tourism Infrastructures in the Ecotourism Destination of Band Village of Urmia Using SWOT Model

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Abstract

Ecotourism is a branch of tourism which could change natural potentials and cultural characteristics into actual resources. It is obvious that, without knowing potential and actual powers of each region, planning and prediction is deemed impossible. In the face of this fact, current research seeks to identify advantages, disadvantages, opportunities, threats and strategies of ecotourism development in Band Village, Urmia. This research aims at introducing Band Village as one of touristic regions of West Azerbaijan, investigating issues and problems in terms of tourism facilities and infrastructures and ecotourism potentials and suggesting strategies regarding tackling ecotourism obstacles. Dominant approach to this research is descriptive, causal and of applied nature. To collect data, questionnaires were used and the population consisted of tourists who traveled to Band in summer 1388. To analyze data, SPSS was employed and ArcGIS software was used to draw maps. The statistical technique used in the research was Pearson correlation. Also, to analyze ecotourism potentials, SWOT model was used in order to augment the advantages and opportunities and to decrease disadvantages and threats. The findings indicate that:

- The more advertisement, the higher the umber of arriving tourists. The result from this relationship was 41% and showed acceptable and middle toward high relationship.

- The more the facilities and services, the more the satisfaction of tourists. In Band, the relationship between satisfaction of tourists and

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facilities and services was 36% showing middle toward low relationship.

- The evaluation of this region by SWOT model shows 35 disadvantages and threats and 25 advantages and opportunities which require serious attention of managers and macro and coherent planning in order to change disadvantages and threats into advantages and opportunities regarding ecotourism development in the study region.

Keywords: Tourism, Ecotourism, Tourism Services, Band Village of Urmia, SWOT.

The Study of Role and Position of ICT on the Citizens' Participation in Urban Management (Case Study: Esfahan City)

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Abstract

The aim of the present study is the analysis of the role and position of ICT (Information and Communication Technology) as one of the prominent factors in citizens' participation in urban management of Esfahan. The applied methodology in this study is of application one based on the purpose of the study, and survey one based on the process of data collection. The population of the study includes the citizens aged 20-49 who are living in Esfahan, and the sample size includes 384 persons, for which the Cochran formula is chosen. The results of the study show that the citizens' E-participation is very low. The effect of the benefits of electronization, economic trust and information literacy on E-participation is significant in Structural Equation Model. Afterall the coefficient of the effects of electronization benefits is both negative and low, and the coefficient of the other factors is positive and moderate. The information literacy of 57 percent has had the upmost effects on E-participation. All the general and partial indexes are at the level of acceptability; therefore, the collected data support the specified theoretical model in a great extent. Generally, with the consideration of 48-percent prediction of E-participation and 23-percent estimation of dependent variable variance used by the factors of the study, the role of ICT in citizens' participation is suitable. But the position of ICT in citizens' participation in urban management and the framework of E-participation do not show any suitable condition.

Keywords: Information and Communication Technology, Electronic Participation, Urban Management, E-city, Information Literacy, Electronic Trust.

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Cooperative Measurement of Participating Capacity in Old and New City Fabrics with AHP Model (Case Study: Hossaineyeh (old) and Ghaem Town (new) in the Zanjan City)

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S. Gholami[3]
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Abstract

Nowadays, implementing the concept of participation and participatory planning in the planning literature has come up firstly in developed countries then, its developed form in developing countries because of its failure and the criticisms against the urban planning process before 1950s (such as physical-oriented urban plans). Awareness of the participatory capacity of urban residents to implement programs and achieve planning goals is essential. Therefore, recognition of participation different dimensions and its evaluation in urban areas leads to understanding of the differences among urban systems (urban areas), and it will make urban planning process organized and operational according to the excising differences. This study has attempted to compare the adaptive capacity of people's participation in the old and new fabrics with using quantitative research methods, hierarchical analysis model (AHP) and correlation analysis. The study is validated using case study in Hossaineyeh (old tissues) and Ghaem town (new tissue) in Zanjan city. The results show that despite multiple problems in the old fabrics, participation capacity of its residents in upgrading environment is higher than in the new fabrics.

Key word: Participation, Participative planning, Facilitation, Old and New fabrics, Analysis Hierarchical process (AHP)

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Evaluation of Compatibility Rate of the Surrounding Appliction of Historical Works with Urban Tourism Development Case Study Cultural-Historical Places of Tabriz

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Abstract

In historical-cultural tourism discussions, vicinity applications of historical places are important in terms of the interaction of tourist with the place. In most cases the surrounding applications of historical places have less compatibility with historical spaces and result in conversion of the valuable historical places to the separated places and free from the spaces connected to them especially in terms of spatial function. This paper is based on evaluating the compatibility rate of the surrounding applications of historical works in cultural-historical area of Tabriz with the aim of attracting tourists. In order to do this the needed data have been collected from tourists by using questionnaire, and the statistical calculations are made to find the relationships between the variable using SPSS software and chi-square tests. The results show that changing the application patterns of surrounding spaces of historical works would increase the residence period of tourists and visitors of historical places.

Therefore there should be an effective planning to provide supportive and service spaces surrounding the historical places. On the other hand considering the tourism paths and designing the connecting rings in the distance between historical spaces, along with special facilities, can create a strong incitement for generating new spaces in historical textures and make them desirable and lively places.

Keywords: Historical Works, Tourism Attractions, Surrounding Spaces, Tourist, Cultural-Historical Places, Tabriz.

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The Study of Synoptic Patterns Dominating on the Very Intensive Temperature Inversion in Tabriz

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Abstract

In this research we have studied Tabriz temperature inversion using radio-sound information, Skew-t maps and synoptic maps during the 2004-2008 period in daily and monthly scales. After reviewing the information and data at first days with weak, medium, and intense and very intense temperature inversion conditions were specified. Thereafter, the synoptic pattern of very intense and weak samples relating to three earlier days and two days after the peak of temperature inversion were analyzed using ground surface synoptic maps of 850 and 700 hp. The results indicate that there is a strong correlation between the occurrence of high pressure systems and the intense and very intense temperature inversion. In such a way that the intensity of temperature inversion has a straight relationship with synoptic pattern conditions especially the entrance of high pressure systems in the area. When the high pressure system in a stable condition is coming to the area in few-days scale, the intensity of temperature inversion is maximized. After the entrance of the low pressure cells, the temperature inversion is eliminated. Findings of this research have shown that with analyzing the synoptic systems that lead to the occurrence of temperature inversion and through the recognition of the patterns dominating over it, one can predict extreme temperature inversion. In addition, we can distinguish the patterns leading to the air pollution.

Keywords: Temperature Inversion, Synoptic Patterns, Intensity Factor, Skew-T Maps, Tabriz.

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Determination and Analysis of the Levels of the Rural Districts of the Province Aanjan, Using the Centrality Index and Preston Models

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Abstract

Investigating and recognising the rural regions and analyzing their abilities and problems in the process of planning the rural development are of a great importance and nowadays being aware of the facilities and problems of ruralregion is considered necessary in rendering plans and programs for development. The determination and analysis of the level of the facilities of the rural regions in different fields using the quantitative methods play on important role in this process. In the present article, using the models of centeral index and Pereston as well as 45 indexs in different fields (economy, social, health and medical and agriculture). We tried to determine and analyse the facility levels of the villages in Zanjan province.Environment facilities, adjacency and being near to the cities, centers and place for development, industrial places and the main fundamental network are very important in the level of the facilities of the rural regions. The results show that considering the level of facilities these villages have considerable difference in each field (economy, social, health and medical and agriculture). The differences were such that 9 out of 46 of these villages were in the privatization level in (economy, social, health and medical and agriculture) and only one village had considerable facilities.

Keywords: Development, The analysis of the level of Facilities, Centrality index, Preston models, Village, Zanjan Province.

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Zoning Slope Instability Risk by Using LNRF Modeling (In Kalan Basin of Malayer)

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Abstract

Mass movement is one of the natural hazards with regard to frequency of which and its strength there are two consequences direct (blocking the rads and the direction of waterways, burring the residential areas and service installations) and indirect consequences (environmental unpleasant effects, making the soil useless, increasing the sedimentaion and decreasing the capacity of dams). The present research was carried out on Kalan dam watershed in Malayer to distinguish the effective factors in the mass movement and recognize prepared areas for mass movement and appointing the weight which states the standard role of these factors in mass movement occurrence. Factors such as lithology, space of faullts, slope, altitudinal surfaces and rainfall are chosen as the most effective factors in the mass movement occurrence. By using geological maps, topography and aerial photos in the from of geographical information system (GIS) and ArcGIS software, we used LNRF model in the maps in the numerical and stratum from for analyzing the obtained data through studying the effective variances as the research conceptive tools. We finally prepared the zoning map of the mass movement danger by combining various strata (layers) through weighting to the effective factors and their algebraic conclusion and the results show that the LNRF model is a good competence to study the data and zoning of mass movement in Kalan dam basin.

Keywords: Mass movement, Zoning, Kalan dam, ArcGIS & LNRF, Zagros.

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Analysis of Dynamic Indices of Torrents in Karun Basin

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Abstract

In this research large scale dynamic and thermodynamic anomalies during storm events resulted from cyclogenesis in the Mediterranean Sea and Sudan low-pressure systems, are investigated. 5 severe storms that happened in Karun Basin (1998-2008) were selected and using Japanese Re-analysis data (JRA25), anomalies of dynamic and thermodynamic indices, 2 days prior to the start of the storm until the end of the storm were analyzed.

The selected indices in this research are potential vorticity, convergence and divergence, vertical velocity, absolute vorticity advection, specific humidity, moisture flux, potential temperature and equivalent potential temperature.

According to the results and comparing 6-hourly recorded rainfall amounts, it was found out that in the reference events, before the start of the storm, geopotential height values, in the under-study region decreased and at the time of maximum rainfalls, the geopotential height reached to its lowest values and by end of the storm, the values started increasing, whereas parameters related to convergence and vertical movements, such as potential vorticity, vorticity advection, moisture flux, convergence of moisture and specific humidity amounts corresponded to the same trend of rainfall from the beginning to the end.

It is obvious that none of these indices can individually cause the occurrence of a storm, but by analyzing trends and regressions, it seems that there are meaningful relationships between geopotential

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height, moisture advection and potential vorticity and rainfall amounts which can be used in forecasting future rainfall events.

To verify the results obtained from the reference events, 2 days without rainfall at least 2 days before and after the selected days, were also selected and studied. The results verify considerable changes of the selected dynamic and thermodynamic indices during stormy days compared to the days without any rainfall in the region.

Keywords: Storms, Dynamic, Thermodynamic, Karun, Sudan low-pressure systems.

The Assessment of Quality of Access to Urban Open Spaces Based on Condensation Analysis of Open Space in the Time of a Natural Disaster in Urban Areas (The Case Study of Tabriz)

A. Asghari Zamani[1]

Abstract

Open spaces play an important role in reducing the amount of work and the results of natural and artificial disasters. The main function of it, in the time of earthquake, is separation of one area with potential risk from another, and thus prevents the development of chains of events and focused of activity of destructive forces. This study shows that open spaces within the city of Tabriz can be divided in to four main categories as urban green spaces, arid lands, urban gardens and farms within city limits in which open spaces can be effective in reducing losses from earthquakes and play important role to optimal management of crises in various stages of crises caused by the earthquake. Results show that all open spaces in urban area of Tabriz, including aforementioned 4 categories have an areas of about 11722 ha, the level of which is equivalent to 47% of the total surface area of Tabriz. Analytical results of this study show two major subjects; the first however, from the perspective of quantity compared with other cities open spaces seems a little too common but it should be noted that the distribution of these spaces in different parts of Tabriz is very heterogeneous. Secondly, most of the aforementioned levels include arid lands (7158 ha) and form land (3592 ha) in located in the outlying areas of city of Tabriz.

Keywords: Access quality, Disasters events, OSR index, City of Tabriz.

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