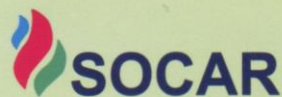




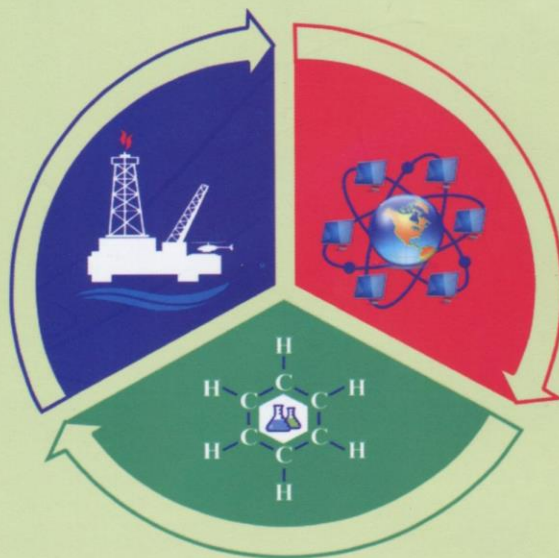
Azerbaijan National
Academy of Sciences



State Oil Company
of Azerbaijan Republic

*1st International Scientific Conference of
young scientists and specialists*

**THE ROLE OF MULTIDISCIPLINARY
APPROACH IN SOLUTION OF ACTUAL PROBLEMS
OF FUNDAMENTAL AND APPLIED SCIENCES
(EARTH, TECHNICAL and CHEMICAL)**

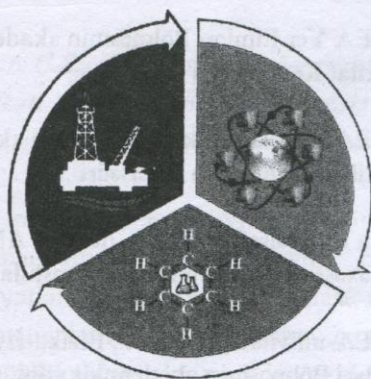


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20th anniversary of the Contract of the Century*

Book of Abstracts

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*Fundamental və tətbiqi elmlərin
(yer, texnika və kimya elmləri) aktual problemlərinin
həllində multidissiplinar yanaşmanın rolu*

*The role of multidisciplinary approach in solution
of actual problems of fundamental and applied sciences
(Earth, Technical and Chemical)*

*Роль мультидисциплинарного подхода в решении актуальных
проблем фундаментальных и прикладных наук
(технические, химические и науки о Земле)*

Baku - 2014

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applicability of MODIS data and also decision tree classifier approach for generating land cover maps at regional level.

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ESTIMATION OF LOCAL STABILITY OF SLOPES OF MOUNTAIN ROADS

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Kyrgyzstan is highland where 94 % of territories occupy mountains and has no exit in the high sea. In connection with the geographical isolation and non-uniform situated occupied and industrial centers, the road network of Kyrgyzstan is constructed in difficult physico-geographical conditions, with strongly crossed relief, sharply continental climate, to ensure the safety and rehabilitation which are sent annually a lot of effort and financial costs. [1]

Construction of highways is one of priority branches for development of the industry, agriculture, tourism and an exit in the markets of neighboring countries in the country, and also at maintenance of national safety and improvement of conditions and a population standard of living. Maintenance of uninterrupted and safe movement of cars is the main priority in road sector. However safety on mountain roads remains an actual problem as harm caused by the nature and the subsequent expenses for repair and restoration of the broken sites of roads, not seldom exceeds a damage put by intensity of movement of supersize transport.

Exploitation of roads on mountain slopes essentially becomes complicated because of infringement of local stability of slopes in the form of landslides and mud streams and which are actively to be evident; after loss precipitation in the form of a rain and often observed on practice landslide deposits by collapses of soil weights on mountain roads (Fig.).

It is known that local stability of slopes is defined by capacity of a zone of aeration which is to undergo to constant natural-climatic factors, such as loss of precipitation, seasonal fluctuations of temperature of air, speed of a wind, physical both chemical aeration and infringement occurs with more frequency in comparison with infringement of the general stability of slopes.

The following table shows the main causes of disturbance of local stability of roads slopes [2].

The estimation of local stability of slopes of mountain roads is made on the basis of complex geomechanical, engineering-geological researches of slopes, and laboratory definitions of physic-mechanical of soil properties.



Fig. Disturbance of local slope stability after precipitation

The main forms of violation of local stability of slopes, depending on the causes and conditions of their formation

Forms of disturbance of local stability	Reasons	Types of soil slope
Sliding and slipping Slopes	Physical and chemical weathering and excessive moisture	Slopes composed of clayey soils, not resistant to physical and chemical weathering
Erosion deformation	Of rainfall water and surface waters	Not fortified slopes composed of little cohesive soils and water unstable soils
Mechanical suffusion and flushing the soil	Groundwater	Slopes composed of sandy loam and sandy soils, in the case of yield aquifers

The basic strength property of soil is resistibility to their shear. Characteristic indicators of resistance of soil it is a corner of an internal friction and coupling [3].

For an estimation of influence of humidity, density, grain-size composition of soil and temperature fluctuation of air on resistibility to shift of soil have been conducted laboratory researches on artificial samples-twins. And on the basis of the analysis of the received results it is revealed that at an estimation of local stability of slopes of dredging of mountain roads, in mountain-folded areas it is necessary to consider:

1. A slope steepness - with increase in a corner of a slope the probability landslide process increases, already at a steepness of a slope 100 there is a washout;
2. grain-size composition of soil - with prevalence of particles in a ground in the sizes above 1mm decreases their resistance to shift depending on humidity and density 4-7 times;
3. density of the soil - depending on humidity at values of density from 1700kg/m³ and 1300kg/m³ falls resistance of the to shift on 35 %;

4. Humidity of the soil - increase in humidity resistance of soils to shift decreases to 25 % of 3-6 times. At humidity of 10-12 % resistance to shift of the soils increases with 0,01МПа to 0,09МПа,
5. Temperature fluctuation of air - at negative values of temperature of air of temperature of air from -100S to +403C resistance of a ground to shift increases 2-3 times. At the further rise in temperature of air +400C increases to resistance to ground shift in 1-4 times.

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EKOLOJİ GƏRGİN VƏZİYYƏTİ OLAN SUMQAYITDA UZUNÖMÜRLÜLƏR VƏ UZUNÖMÜRLÜLÜYƏ TƏSİR EDƏN FAKTORLARIN MÜQAYİSƏLİ TƏHLİLİ

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Uzunömürlülük problemi çoxsaylı tədqiqatların əsas istiqaməti olsa da, hələ də aktual mövzu olaraq qalmaqdadır. Uzunömürlülük haqqında fikirlər müxtəlif olsa da, hal-hazırda 90 yaşdan yuxarı insanlar uzunömürlü adlanır. Apardığımız tədqiqatlar uzunömürlülüyə təsir edən faktorların araşdırılması və Sumqayıt şəhərində yaşayan uzunömürlülərin tədqiqinə həsr olmuşdur. Ədəbiyyat məlumatlarının təhlili zamanı ilk diqqəti cəlb edən məlumat, uzunömürlü insanların əksəriyyətinin mülayim iqlim qurşaqlarında yaşadığı və belə şəraitin insan ömrünün uzanması üçün əlverişli olmasıdır (Альперович В. А., 2003). Çox saylı ədəbiyyatdan məlum olmuşdur ki, uzunömürlülərin əksəriyyəti dağlıq və dağətəyi ərazilərdə yaşayır. Uzunömürlü insanların bioqrafik analizi göstərmişdir ki, onların əksəriyyəti qadınlardır və kənddə yaşayanlardır. Belə ki, kənd əhalisinin sağlamlıq vəziyyətinin yaxşı saxlanması sakit həyat ritmi, müxtəlifşəkilli və kifayət qədər yüksək fiziki aktivlik, ətraf mühitin sənaye tullantıları ilə nisbətən az çirklənməsi faktorları mühüm əhəmiyyət kəsb edir. Müxtəlif şəkili fiziki əməyin təmiz havada olması da insan ömrünün uzanmasında mühüm rola malikdir. Digər əhəmiyyətli faktlardan biri isə, ailə - məişət şəraitinin yaxşı olmasıdır. Ailədə xoşagələn psixoloji şərait sağlamlığın qorunması ilə yanaşı, uzunömürlülüyə də səbəb olan faktordur. Uzunömürlülük də etnik faktorlar mühüm rol oynayır. Ədəbiyyatda tez-tez uzunömürlülüyn genlərlə nəsilədən nəslə ötürülməsi və müəyyən populyasiyalarda uzunömürlülərin üstünlük təşkil etməsi haqqında çoxsaylı məlumatlar var. Belə ki, uzunömürlülükdə bütün qeyd edilən faktorların birgə təsiri zamanı irsi faktor reallaşır. Yəni, uyğun olmayan iqlim şəraiti, qidalanma və əmək fəaliyyətinin qənaətbəxş olmaması irsiyyətdə uzunömürlülük olduğu halda belə, həyatın uzanmasına mane ola bilər. Uzunömürlülərdə sağlamlığın xarakteristikası xüsusi əhəmiyyət kəsb edir və adətən fizioloji