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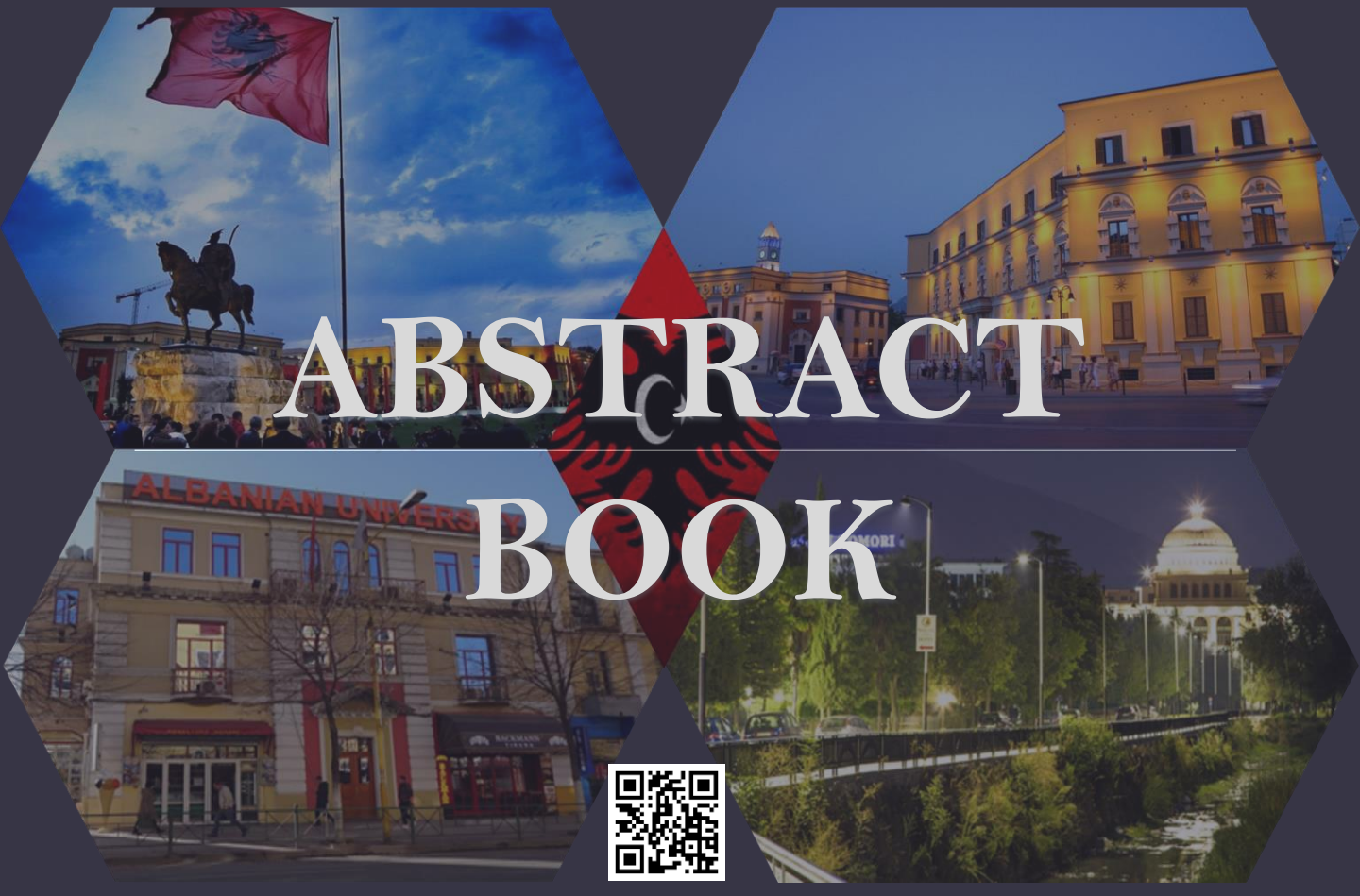

ABSTRACT BOOK

11-13 June 2021, Tirana, ALBANIA

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ABSTRACT BOOK

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O 1. EVALUATION OF ALLERGIC ASTHMA CAUSED BY POLLEN IN A GROUP POPULLATION OF TIRANA

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ABSTRACT: An allergic response occurs when immune system proteins (antibodies) mistakenly identify a harmless substance, such as tree pollen, as an invader. In an attempt to protect your body from the substance, antibodies bind to the allergen. The chemicals released by your immune system led to allergy signs and symptoms, such as nasal congestion, runny nose, itchy eyes or skin reactions. For some people, this same reaction also affects the lungs and airways, leading to asthma symptoms.
The study of allergic asthma by immunological methods, and the determination of pollens as allergens is important in determining the diagnosis and avoiding, or treating, asthma.
These allergens contact our body through the skin, airways and food. Pollen enters the lungs through the air and comes in contact with the mucous membranes of the nose, throat and bronchi.
It has been noticed that the presence of allergens such as pollen in our country is very high, especially in Tirana. In the city of Tirana, there has been an increase in people with respiratory and food allergies, being very polluted by increased traffic, by malnutrition with fast and canned food, etc.
Pollen determination methods have been applied in the city of Tirana. Individuals underwent the Alleisascreen test. It has been observed that in general the age group up to 10 years is always the most affected to any type of allergy. This test is very sensitive and determines the presence of pollen as an allergen, with a single test with a very high degree of sensitivity and the presence of the allergen.
The group of individuals taken in the analysis were 100 of which 34 came out negative from the Alleisascreen test and 66 positive's cases. What is of interest in this study is that most of the population has a lack of information about allergies and pass it on as something normal. For the first time, pollen as a larynx and its connection with allergic asthma has been studied in the city of Tirana.
Through biostatistical analyzes we have seen the association of allergic asthma in relation to their age group, gender and place of residence.

Keywords: Allergic asthma, pollen, pollution, Alleisascreen test, allergies, etc.

O 2. STUDY OF SNOW DEPTH AND BIOCLIMATIC IMPACT

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ABSTRACT: One of the most important climatic elements in a certain area is snow. The amount and depth of snow matter, as they have an impact on the lives of plants and animals, as well as the components of the climate. The scientific techniques used at NOAA provide accuracy and estimates for large climatic zones. The impact of snow depth is related to the water balance, the passage of plant stages, the adaptability of living things, climate change, etc. Climate warming can reduce snowfall and cause earlier spring melts and shorter snow cover seasons. For instance, warmer air in Alaska has caused the snow to melt earlier each spring, lengthening the snow-free summer season. Seasonal snow is an important part of Earth's climate system. Snow cover helps regulate the temperature of the Earth's surface, and once that snow melts, the water helps Fill Rivers and reservoirs in many regions of the world, especially the western United States. In terms of area, snow cover is the largest single component of the cryosphere, covering an average of about 46 million square kilometres (about 17.8 million square miles) of Earth's surface each year. About 98 percent of the Earth's snow cover is located in the Northern Hemisphere. This study was conducted within the project: Evaluation of JPSS satellite and blended snow products, project NOAA, USA.

Keywords: Study of snow depth, bioclimatic impact, ecosystems

Acknowledge: Evaluation of JPSS satellite and blended snow products, project NOAA, USA

O 3. IMPACT OF RAINWATER AND VALIDITY FOR DOMESTIC USE

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ABSTRACT: Rainwater collection is an ancient practice in many countries and a relatively new concept in Albania. To get national attention, being Albania a country with hydric potential in the winter period, we must encourage part of the population to implement some of the sustainable practices such as the rainwater management approach. Given the economic potential of this green practice which will soon become a way of life, the need to preserve rainwater should be emphasized to illustrate the economic value, which is a long-term investment to save money, water, reduce local floods, longer life for the roads, and incrementation of the apartments financial value. The study is focused on the city of Durres, as the roads of the city are always flooding during storms in winter and has a limited amount of water available during summer, mainly due to serious losses of drinking water in the distribution system. We will present here a case study of rainwater management system design and cost analysis.

Keywords: Rainwater management system, hydric potential, water collection plant, green practice.

O 4. PRELIMINARY FINDINGS ON RARE EARTH ELEMENT GEOCHEMISTRY OF SOILS IN SOUTHERN KONYA (TURKEY)

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ABSTRACT: The study area located in southern part of Konya (Turkey) is dominated by sedimentary rocks, ophiolitic rocks and volcanites. The topsoils (0-20 cm) show that it is dominated by calcite, quartz, dolomite, plagioclase and kaolinite. The ophiolitic soils located on ophiolitic units mainly comprise serpentinite, titanomagnetite, magnetite, chlorite, amphibole, hematite, goethite, talc, smectite, diopside, quartz, calcite, and Cr-rich minerals. The volcanic soils located on volcanic rocks mainly comprise feldspar, amphibole, jarosite, magnetite, mica/illite, kaolinite, quartz, and calcite. The sedimentary soils located on carbonate rocks mainly consist of calcite and dolomite. 65 investigated topsoil samples in southern Konya have 92.88 ppm (mg/kg) average REE amount. The average light rare earth element (LREE) concentration (84.81 ppm) in studied topsoils is higher than the average heavy rare earth element (HREE) concentration (8.07 ppm). The REE distribution patterns of the topsoils are similar to those of Post-Archean Australian Shale (PAAS), North American Shale Composite (NASC) and upper crust (UC).

Keywords: REE, geochemistry, soil, southern Konya, Turkey.

O 5. ANTIBIOTIC POLLUTION IN THE ENVIRONMENT – SOIL RESISTOME

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ABSTRACT: Environmental antibiotic pollution is a problem that is expected to gain more attention in the near future since antibiotic consumption is still increasing around the world. Antibiotic pollution is poorly regulated on a local and global scale, antibiotic molecules are increasingly found in terrestrial, freshwater, and marine environments. Fluoroquinolones are one of the most used classes of antibiotics. Enrofloxacin belongs to the class of fluoroquinolone antibiotics that have been intensively used for the treatment of bacterial infections in veterinary medicine. In the environment, enrofloxacin can undergo degradations by different processes including photolysis, biodegradation, and oxidation by mineral oxides but it is not sensitive to hydrolysis. Despite these degradation mechanisms, the environmental half-life time of enrofloxacin is very long. In this study, the effect of enrofloxacin on the function and structure of soil microbial communities was evaluated. In pots with different concentrations of enrofloxacin were planted: Lactuca sativa var. crispa, Anethum graveolens, Thymus serpillum, Mentha piperita, Calendula officinalis. Soil respiratory responses were inhibited at the high enrofloxacin concentrations in the soils and were increased at the lowest concentration (10 mg·kg−1). The maximum level of soil toxicity was 67.21% at the concentration of enrofloxacin 1000 mg·kg−1 , in the control this parameter was 8.56%. The soil with a high concentration of antibiotics was characterized by a low content of nitrogen-fixing microorganisms and a high number of oligotrophic and spore-forming microbiota. Thirty-seven antibiotic-resistant bacterial isolates were cultured from the soil. All isolates were multi-drug resistant, of which greater than 64% were resistant to 9–12 antibiotics, comprising almost all classes of antibiotics. The antibiotic contamination of the soil causes negative changes in the microbial community, reduces the respiratory activity of the soil, and is one of the important factors in the formation of soil resistome.
Acknowledgment. This project was supported by the Slovak Academic Information Agency (SAIA), grant number 18032.

Keywords: Antibiotic, soil, microbiome, resistance.

O 6. MODERN DISTRIBUTION FEATURES OF THE MULTI-YEAR TEMPERATURE REGIME IN AZERBAIJAN LAND

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ABSTRACT: The distribution of temperature regime in the territory of the Republic of Azerbaijan in 1961-2016 was studied, observation data of hydrometeorological stations operating in this period were used in this research study. As a result of mathematical, statistical and cartographic analysis, it has been again clarified that the temperature regime of the republic varies from north to south and from the plains to the highlands. In addition, multi-year average and seasonal indicators of temperature in different regions of the country were determined. The stations used in the analysis are located in the range of -25 ÷ 2218 m. In higher areas the determination of the abovementioned quantity is based on the variation of the vertical gradient. The study shows that the maximum values of the perennial average temperature are observed in the Kur-Araz plain in the range of 14.6-15.4 ^{0}C. The average perennial temperature decreases at higher elevations. The results of the study can be used in future research on climate regime and change, agriculture, tourism and the creation of other large-scale industries in the region.

Keywords: Hypsometric features, transformation, convergence, climate types, climate change, interpolation, correlation, variation

O 7. ECOLOGICAL CHARACTERIZATION OF THE SMALL LAKES IN ALBANIA

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ABSTRACT: Small water bodies compared to larger lentic freshwater ecosystems, are characterized by a lower area/perimeter ratio that emphasizes the contribution of ecotonal zones to their metabolism and functioning, maximizing the importance of their role as biogeochemical reactors, the small water ecosystems are shallow (not more than 20 m deep) and small lentic water bodies ranging in area between 1 m^2 and several ha (≤10 ha), including small lakes, pools, ponds, and wetlands, both perennial and temporary, with an artificial or natural origin. Due to the geographical position, geological settings and climatic conditions Albania is distinguished by water resource riches. The entire county watershed is 43 905 km^2, while only 65% is within the national borders. Before 1960, wetlands covered more than 2300 km^2, equal to about 8% of the Albanian territory. Large reclamations processes for agricultural purposes strongly reduced the total area of the wetlands since then to less than half. Nevertheless, more than 1300 aquatic sites are still scattered throughout the country: marine habitats, coastal lagoons, fluvial deltas, rivers, springs, lakes and ponds. Wetlands cover a total surface of 970 km^2, equal to about 3% of the whole national territory. The lakes, the coastal lagoons and the reservoirs represent the largest part of these aquatic habitats. All these ecosystems are distinguished by significant diversity of sensitive habitats and species, which so far are understudied and remain extremely vulnerable due significant impact. The impacts are referred to agriculture, tourism development, including nutrient loading and contamination, facing a rapid increase of non-native species invasion and climate change.

Keywords: Small Lakes, Ecology, Temperate, Mediterranean, Lagoons

O 8. ASSESSMENT OF NATURAL CHARACTER, RIVERSCAPE AND VISUAL AMENITY OF THE TRANSBOUNDARY DOJRAN LAKE

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ABSTRACT: The key elements considered for assessment of the naturalness of the lakes and rivers relate to the degree of intactness of the natural elements, patterns, processes, and extent of any physical land use changes or presence of different constructions. The natural character is essentially a measure of the naturalness or modifications of the natural elements, patterns and processes that comprise a water body. The current contribution is based on a process to assess the level of natural character that involves an understanding of the current systems and attributes that contribute to Lake Dojran ecosystem including abiotic, biotic and other factors. This assessment considered imputes data, such as river hydrology and morphology, aquatic and terrestrial ecology, water quality and landscape architecture. This approach is based on field visit carried out in end of March 2021 and further on a desktop review of relevant available data. The second component of this study includes the visual aspect of amenity as recreational values of the Lake Dojran in its full services. The effect of dramatic water level change/decrease (based on historical data of the period 1985-2000) on visual amenity values was correlated to offered recreation values. The survey analyses on the North Macedonian side of the lake revealed that <25% of the lake margins remained at the natural level, while the pressure from different sectors of human presence is steadily increasing.

Keywords: Lake Dojran, Natural character, biotic factors, land use, water level.

O 9. BUILDING A HISTORICAL PLACE BRIDGE WITH THE CONCEPT OF CULTURAL LANDSCAPE; TILE ART AND MOSAICS

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ABSTRACT: In this study, cultural landscape, which is a wide area on which the concept of cultural landscape was based, was briefly mentioned. The aim of the study was "by building a bridge between the concept of cultural landscape and historical space" It was to examine how the art that we encounter in our journey in history with our culture is reflected in nature, the buildings we use and life. By combining culture and art, which is the whole of material and spiritual values, it has been tried to make sense through visuals and examples based on tile art. The place and importance of glass mosaics, ceramic mosaics and materials used in the cultural landscape. They were emphasized in the study.

Keywords: Landscape Classification, Cultural Landscape, Tile Art

O 10. THE EVALUATION OF THE ADVANTAGE-DISADVANTAGE AND DESIGN EFFECTS OF LIVE-LIVING MATERIALS

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ABSTRACT: Natural and artificial materials are interrelated in landscape planning. The landscape architect has to plan harmonious and sustainable partnerships between landscape materials. In this study, the usage areas of living and non-living material which used in the example of City Park Aiolis City Memory and Memorial House located in İzmir Aliaga Yeni Neighborhood, were discussed in a multifaceted way. In the applications, advantages and disadvantages were examined and security problems arising from incompatibilities, lack of relationship and deficiencies were evaluated. In such landscaping works where living and non-living materials were used together, while considering the advantages of the materials. the compositions that they come together should be examined at every step without ignoring.

Keywords: Live and non-living elements, İzmir, Artificial Materials, Landscape Design

O 11. THE EFFECTS OF COLOR CHOOSING IN MATERIALS ON LANDSCAPE PROJECT DESIGNS

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ABSTRACT: Colour types have psychological and visual effects on humans that cannot be ignored. In fact, it is one of the most effective elements of design. The colour element in landscape designs is a factor that should definitely be evaluated in terms of design. The phenomenon of colour, which is closer and more effective to our senses. Also, it is perceived even by people who do not react to other elements. It directs people towards the inner world thanks to the vibrations it creates spiritually. It is possible to saturate our aesthetic and harmonious desires unique to our own tastes with colours. Colours alone may not explain an element; but it is enough to express a feeling and a thought.
Human beings are always in interaction with the environment and nature. In this context, the psychological, physical and biological needs of the human being must be met in the best way possible. At this point, the task falls to the designers. In this study, the place, importance of color in landscape architecture and its use in landscape designs were mentioned with examples.

Keywords: Colour and landscape relationship, Inanimate Materials

O 12. EXAMPLES OF WALKWAY FOR VISUALLY IMPAIRED PERSON

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ABSTRACT: Although steps have been taken to make life easier from the past to the present, special work has been carried out for the disabled in the last quarter century. In recent years, efforts have been made to create more comfortable movement areas for visually impaired individuals in Turkey. Landscape Architects have many duties in the social environment, sports fields, and public areas to remove the obstacles. Making designs that remove obstacles and controlling their applications are the most important points in projected areas.
In the global world, by transforming technology and socialization into an advantage, analyzes can be made easily and new products can be designed for the comfort of individuals. comparing correct and wrong applications, projects that can create functional areas in usage areas will carry Landscape Architecture to a more important point and will pave the way for new responsibilities.
Within the scope of this study, new products will be more efficient with the integration of developing technology into projects. By solving such obstacles, it will be able to expand the comfort areas of person with disabilities.

Keywords: Social environment, Landscape relationship, Comfort of individuals

O 13. THE IMPORTANCE OF GREEN AREAS FOR HUMAN HEALTH

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ABSTRACT: Today, the effects of green areas on human health and psychology are known by most people and it is thought that green has a relaxing effect on people. Considering the history, the importance given to green in the past also stands out. Green areas have become more important in today's Covid 19 pandemic period. In this study, the psychological and physical effects of green areas on human health, their positive and negative aspects, as well as the effects of universal problems such as environmental pollution, which is increasing day by day, on human health in our country and in the world will be examined, and issues such as the studies on green areas in our country and the number of green areas per person will also be discussed.

Keywords: Green areas, sustainable environment, urban areas, human psychology

O 14. THE USE OF ECOLOGICAL AND SUSTAINABLE MATERIALS IN LANDSCAPE DESIGNS

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ABSTRACT: To create the ideal ecological design model is possible by following the constantly renewed ecological information and analysis. In line with this information and analysis, application-oriented eco-materials can be selected and even new ones can be developed. Since "Ecology" is a concept with many variables, techniques and materials differ for each ecological design application. Therefore, the most appropriate eco-material selection can be made in line with the criteria shaped according to the ecological design model, whose main principle is "minimum resource consumption and destruction with maximum benefit, sustainable design". It will be possible to choose the most suitable eco-material in line with the formed criteria. Sustainability could be summarized as "Meeting the needs of today without damaging the ability of future generations to meet their own needs". In this study, ecological and sustainable materials were mentioned and examples were given.

Keywords: Sustainable materials, Landscape inanimate

O 15. THE MAJOR REASONS FOR THE EXTINCTION OF LAKES IN TURKEY - POSSIBLE ECONOMIC PROBLEMS AND SOLUTION PROPOSALS

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ABSTRACT: In consequence of the effect of global warming, the absence of large rivers feeding lakes, evaporation, lack of rainfall and excessive hot days together with the increase in water demands because of evaporation, agricultural use, drinking and utility water and environmental reasons causes the lake level to decrease. This situation creates problems in terms of both ecology and economy, and the appearance of natural areas is also adversely affected. Within the scope of this study, the economic and ecological problems that our lakes are exposed to in general terms, the danger of extinction and the necessary measures to be taken to prevent these problems were discussed.

Keywords: Lakes, Economic problems, Measures

O 16. THE IMPACT OF TECHNOLOGY ON THE ENVIRONMENT: A DISCOURSE IN ENVIRONMENTAL ETHICS

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ABSTRACT: This paper as a philosophical study critically accessed the paradoxical ideology that while the impact of technology on the environment has been vastly negative, the same technology has been claimed to save our planet. This idea is maintained by WWF, who echoed the same sentiments that though the technology is a solution enabler it is also part of the problem. The term 'technology' itself refers to man's use and application of scientific knowledge for practical purposes, as well as the devices and the machinery developed as its result. Our current age termed 'technological age' which began in the mid-20th century is a period of rapid change, where technological developments are revolutionising the way we live, at the same time leading us further into the depths of catastrophe in the form of climate change and resource scarcity. It has been agreed among many authors that it is almost impossible for man to live without technology. From an ethical point of view, this work investigates the worldview and perceptions of people towards technological use. This work identifies the two-emerging worldview: the anthropocentric and non-anthropocentric worldview that drives technological initiation, development, and use. Against the popular notion that the non-anthropocentric worldview will help humans practically solved environmental issues. This work argues that both anthropocentric and non-anthropocentric worldviews are only within theoretical pursue with little practical relevance. This work argues in favour of 'anthropoholism' which is a fusion between the two worldviews for solution the environmental degradation and technological use.

Keywords: Environment, Environmental Ethics, Anthropocentricism, Anthropoholism.

O 17. FORECASTING AIR POLLUTANT INDEX (API) USING NONLINEAR AUTOREGRESSIVE (NAR) NEURAL NETWORK DURING COVID-19 PANDEMICS IN MALAYSIA

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ABSTRACT: Coronavirus Disease 2019 (COVID-19) pandemics have emerged in Malaysia since 18 March 2020, which then the government has announced for Movement Control Order (MCO) as a method to curb the transmission in public. The air quality is expected to be good as most of the operations are closed. Thus, we evaluated and predicted the Air Pollutant Index (API) during the MCO in Malaysia for an overview of the air quality level during the pandemic. As the API is complex in the atmosphere, we used a nonlinear autoregressive (NAR) neural network model for the nonlinear dataset. Urban cities are generally having higher pollutants concentrations along with the urbanization process. High pollutant concentrations led to health problems, especially respiratory illness, either in the short or long term. We used the data from 18 March 2020 (the first day of Movement Control Order, MCO) until 31 December 2020. Results revealed the NAR model executed higher R^2 for Kuala Terengganu (99.23%). The optimum NAR model architectures which are trained using the Levernberg-Marquardt training algorithm is 1:14:1 for Kuala Terengganu. NAR neural network is capable of modeling and forecasting nonlinear time series during the COVID-19 pandemic.

Keywords: COVID-19, Malaysia, Nonlinear Autoregressive, Movement Control Order, Levernberg-Marquardt

O 18. RECYCLING TECHNOLOGIES OF POLYMERIC MATERIALS FOR IMPROVEMENT OF THE ENVIRONMENTAL IMPACT IN ALBANIA

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ABSTRACT: Management of polymeric waste is an important problem in the Republic of Albania due to their environmental impact. Most of the problems comes from polymeric materials that have been buried and burned in the landfill. During the last decade the percentage of the polymeric waste have been grown rapidly in the overall municipalities of Albania due to the increasement of the consumer usage of polymeric products. Based on it, our government recently have implemented the law for supporting recycling technologies and reducing the environmental impact that comes from polymeric materials waste management. Our research work will be focused will be focused on the state of art of the most implement recycling technologies for polymeric materials in the Republic of Albania.

Keywords: Waste Management, Polymeric Materials, Environmental Impact

O 19. THE CHALLENGES OF MUNICIPAL SOLID WASTE MANAGEMENT IN ALBANIA AND IMPLEMENTATION OF WASTE INCINERATION

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ABSTRACT: Despite years of efforts to improve the management of municipal solid waste (MSW) in Albania, this activity again poses a challenge for the country. The predominant method of waste disposal is landfilling, while in 2017 the construction of the first incinerator of MSW with energy recovery in Elbasan was completed and now is in operation. Incineration of MSW is a well-known method for waste disposal, but in Albania it is being applied in recent years. Currently, two other incinerators are under construction: in Tirana (the capital of Albania) and in Fier. Such a large number of incinerators and consequently small capacity, is associated with higher disposal costs per ton, and higher levelized cost of electricity (LCOE), without exploiting and benefiting the economies of scale. LCOE for an incinerator with power of 10 MWe, resulted 0.1013 USD / kWh and for another one with power of 10 MWe, it resulted 0.0523 USD/kWh. In this paper I will address a general view of the current state of MSW management, the legal framework for this sector, objectives set for the period 2020 - 2035 and the estimation of LCOE for two incineration plants.

Keywords: Municipal solid waste, Legal framework, Incineration

O 20. BIOGAS PRODUCTION STAGES AT CUMRA DISTRICT AND ITS CONTRIBUTION TO THE COUNTRY AND THE ENVIRONMENT

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ABSTRACT: This study examines the contribution that manufacture of biogas and biofertilizer from wastes issued from bovine animal producing facilities in the Central Anatolian region, which has become the center of agricultural and animal production over the last few years, has on the economy the region and the country. In our country as in the world, the use of renewable energy sources is on the rise in line with global warming. It is also significant in terms of the nation's economy that alternative energy resources are utilized for meeting the need for energy. Manufacture of biogas from animal wastes will not only provide the region with significant economic benefits, but also manifest numerous positive environmental and social effects. The manufacture of biogas in the agriculture and animal husbandry industry has been practiced successfully in developed countries for years. In order to contribute to the popularization of this practice in our country, and especially in the Central Anatolia Region, the quantities of biogas and biofertilizer that could be obtained as a function of different quantities of animals have been presented in this study in tabulated form a world long with the economic returns associated with them.

Keywords: Biogas, Organic wastes, Cumra District, Environment

O 21. INVESTIGATION OF BURSA CITY AIR POLLUTION

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ABSTRACT: The part of the atmosphere in which people and other living things live, which is close to the earth; As clean air, nitrogen, oxygen and a small amount of it are made up of other gases. The distribution of these gases is a mixture of 21% oxygen, 78% nitrogen and 1% other gas by volume. Other gases other than oxygen and nitrogen are gases such as argon, carbon dioxide, water vapor, helium, neon, hydrogen, nitrogen monoxide, nitrogen dioxide, ozone and ammonia. Chemical substances that can be in gas, liquid or solid form that change this natural composition of air are called air pollutants. The increase in the number of pollutants in the atmosphere adversely affects the air quality and creates air pollution. Air pollution is defined as the presence of solid, liquid and gaseous foreign materials in the atmosphere that may harm human health and the life of living things or prevent the use of material objects necessary for their survival. Air pollution adversely affects the health of humans, animals and plants and destroys the metal, stone and wood parts of the buildings. Its effects span not only present but future generations as well. The aim of the research is to evaluate the reasons causing the rapidly increasing air pollution problem in cities and the physical geography factors affecting air pollution; Bursa City is to examine the change of air quality over time. First of all, by scanning the literature in the field of study, studies examining the air quality of the city were examined, and the air quality data of the City of Bursa were obtained through the "National Air Quality Monitoring Network of the Ministry of Environment and Urbanization" system between 2019 and 2021. The data obtained were converted into tables and graphics using Microsoft Excel and distribution of pollution level were presented.

Keywords: Air pollution, Bursa city, particle matter, SO_2

O 22. ANKARA AIR QUALITY STUDY

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ABSTRACT: In particular, annual amounts of pollutants released from artificial sources reach from a few hundred tons to millions of tons. These produce effects in varying degrees, depending on the area and quantities in which they are formed. The adverse health effects that occur as a result of the inhalation of pollutants (direct exposure) by humans (direct exposure), the mixing of the pollutants accumulated from the air, soil, plants, animals and other environmental environments into the drinking water and food chain (indirect exposure), and the accumulation and absorption of chemicals entering the body. is the important result. Especially in cities, with the increase in air pollution caused by heating, traffic and industry in recent years, there has been an increase in health problems. Air pollution is the release of chemicals, particulate matter or biological materials that harm or disturb humans or other living organisms or harm the natural and artificial environment. The change in the physical, chemical and biological properties of the air affects natural and artificial non-living beings as well as living things. Air pollution occurs when the natural composition of the air changes to a certain extent. Air pollution is the release of chemicals, particulate matter or biological materials that harm or disturb humans or other living organisms or harm the natural and artificial environment. The change in the physical, chemical and biological properties of the air affects natural and artificial non-living beings as well as living things. Air pollution occurs when the natural composition of the air changes to a certain extent. In the calculation of emissions from traffic, data on the length of the roads in the project area, the number of vehicles in the project area and the amount of fuel consumed in the project area have been compiled. From the number of vehicles in our city, the ratio of the number of collecting vehicles was obtained, and from here, the amount of fuel and how much it was used was calculated by proportioning to the fuel types. According to the amount of fuel consumed; Emissions from traffic are calculated using the emission factors of fuels.

Keywords: Air pollution, Ankara city, particle matter, SO_2

O 23. RECYCLING TECHNOLOGIES OF ALUMINIUM ALLOYS IN ALBANIAN INDUSTRY

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ABSTRACT: The increasing rate of aluminum use and its alloys in recent decades has highlighted the problems of its relationship with the environment. Aspects of reuse or recycling, and ecology in general, have become increasingly important, conditioning the design of each product from the outset. Utilization of technological waste, on the one hand, and scrap of obsolete products, on the other hand, often requires modification of traditional production processes (of primary aluminum), and even the design of new technologies, mainly scrap recycling. Ensuring the necessary purity of the product obtained from the rewriting, at a reasonable cost and without harming the environment, remains one of the strongest challenges for these technologies. Their effectiveness, consequently, is conditioned to a large extent by the processes: preparation, collection, disassembly, cleaning, sorting, chopping and briquetting of scrap. Although seemingly simple, these processes require careful design and rigorous implementation of technical discipline. It is in these last two aspects that we think that more attention should be paid to the manufacturers and processors of aluminum alloys in our country.

Keywords: Ecology, aluminium alloys, recycling technologies, techological waste, environmental protection

O 24. ENGINEERING ANALYSIS AS A GUIDE FOR PREVENTION OF EPIDEMIOLOGY OF ROAD ACCIDENTS IN ALBANIA

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ABSTRACT: Road accidents are a serious problem of the modern world. They are one of the main causes of injuries and are the third most frequent cause of death. Every year, more than one million people, adults and children, die on the roads and several millions get injured. Mortality rate due to injuries from road accidents amounts to 2.2% of all deaths in the world. The research presents epidemiology of road accidents with particular emphasis on the key issues of road safety in Albania, related to the dangerous behavior of road users (disregard toward traffic rules). Despite the various measures which are taken to improve safety on Albanian roads, the number of dead and wounded in the vehicle mishap is still large, and losses borne by society are high. To improve safety on Albanian roads, it is necessary to continue multi- action plan to systematically progress in the level of road safety.

Keywords: Road accidents, traffic, road safety

O 25. AIR QUALITY OF O_3 AND NO_2 TIMELINE CHANGES IN KONYA CITY CENTER

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ABSTRACT: In cases that air quality will change the living health or environmental quality, the composition of the air should not change or the substances that are dangerous to be in the air that not be present in the atmosphere. Air pollution, which is a result of urbanization and fuel use brought about by different life styles, can create a dangerous impact area on a global scale as well as in Turkey. Air pollution has a significant impact on human health, so the issue of air quality is of great importance all over the world. The management of the parameters related to the outdoor air quality is carried out in accordance with the Air Quality Assessment and Management Regulation. A country's or region's success in improving and protecting the air quality, local and national air pollution problems, and the support of citizens who are well informed and informed about the developments in pollution reduction are needed. For the investigation of air pollution in Konya, NO_2 and O_3 parameters have been evaluated. The stations are statistically analysed according to the measurement results made in the required periods. As a result of this, it is aimed to study on the continuously measured parameters and their effects, what the necessary measures should be in order to reduce the effect and what the applications could be by evaluating and graphing the data. In this study, the effect of temporal NO_2 and O_3 changes on air quality was evaluated.

Key words: Environment, Temporal change, Air quality, NO_2, O_3

O 26. SPIRAL CASING DESIGN PARAMETERS ON CENTRIFUGAL FAN PERFORMANCE WITH THE AIM OF INCREASING ENERGY EFFICIENCY AND REDUCTION OF CO_2 EMISSIONS

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ABSTRACT: Industrial fans are subject to European Union energy labelling and Ecodesign requirements. The cost-efficient improvement potential through design is about 34 TWh per year, which corresponds to 16 Mt of CO_2 emissions. Ecodesign requirements for industrial fans are mandatory for all manufacturers and suppliers wishing to sell their products in the EU.
In this paper, the effect of the diffusor angle and width-scale parameter of the spiral casing on the performance of the centrifugal fan was investigated using the CFD software OpenFOAM. Considering a large number of parameter variations, the simulation results are performed by an automated loop in MATLAB which enables the processing of a considerable amount of data in a short time.
The performance characteristics studied were efficiency, static pressure recovery coefficient, total pressure loss coefficient, as well as graphical examples that show the pressure fields and fluid speed in different parts of the volute.

Keywords: Centrifugal fan, volute, CFD, OpenFOAM, efficiency, CO_2 emissions

O 27. TECHNO-ECONOMIC EVALUATION OF ENERGY EFFICIENCY MEASURES IN BUILDING SECTOR, CASE STUDY FIER REGIONAL HOSPITAL

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ABSTRACT: Energy efficiency is considered today as a source of energy. This paper aims to analyse some of most important energy efficiency measures to be taken in building sector. For this reason, a regional hospital is considered for study. Hospitals represent an important and very complex energy consumer for building sector in Albania. To achieve the objective an energy audit is performed and analysed. Some techno-economic indicators are represented and used to estimate energy efficiency measures. Then these measures are prioritised based on indicators described. These procedures will help decision-makers to select the most suitable measures according to many factors influencing in it.

Keywords: Energy efficiency, hospitals, economic evaluation, energy audit

O 28. CLOUD COMPUTING MANAGEMENT AND NETWORK SECURITY. CASE STUDY, E-ALBANIA PORTAL

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ABSTRACT: This paper studies the security of applications in Cloud Computing, and belongs to the discipline of information systems, governance of information systems. As a case study in Albania, it was analysed the cloud computer used in the e-Albania portal. Cloud Computing is today a trend in the information and communication technology (ICT) industry, for which there is a growing interest both in technology and economics. Cloud computing has found wide use in various fields, from individuals to governments or large enterprises. The facilities that this use brings are numerous, ranging from easy access of data by customers to monitoring of every transaction by those responsible. The paper presents and analyses the basic concepts of Cloud computing, construction and use of the Albanian e-Government Cloud, its development model and service. The paper addresses the threats in the cloud, especially network security. It elaborates on the security problem by taking the source of the problem and also the possible solution. It addresses the privacy, data protection and identity management. The paper talks about the e-Albania portal, where it is based to guarantee security in the networks it uses. It presents the strategies taken by the Albanian government to encrypt and code data on networks. The paper analyses any security risks in order to be able to suggest an efficient and economical solution for network security.

Keywords: Cloud Computing, Network Management, Cloud Security, Government Cloud, Cloud Usage, Cloud Framework, Computer Networking

O 29. THE ECONOMIC EFFECTS OF THE COVID-19 PANDEMIC ON ORNAMENTAL PLANTS SECTOR IN TURKEY

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ABSTRACT: Covid-19, also known as the corona virus, first appeared in November of 2019, in the city of Wuhan located in Hubei province of China. During the earliest moments of Covid-19, people were unable to guess at the radical changes in day-to-day life. However, as Covid-19 swept across the world, it has become clear that there are tremendous changes in many areas. Especially in that of health, education, economy, consumer behaviour, and social life. Another area that has been damaged by Covid-19 is the ornamental plant sector. Ornamental plant production began to gain importance in the early 20th century throughout the world and has persisted until now. Turkey has important advantages in ornamental plant cultivation, due to its favourable climate and geographical conditions, proximity to market countries and cheap labour. In Turkey, the ornamental plant sector improves every year in terms of production amount and production area. However, due to Covid-19, consumption habits have changed and this has affected the ornamental plant sector. In this study, the importance of ornamental plants on the environment and human beings, and the effects of Covid-19 on the ornamental plant sector in Turkey were evaluated.

Keywords: Covid-19, Ornamental Plants, Environment and Human

O 30. THE REFLECTIONS OF COVID 19 PANDEMIC ON URBAN LANDSCAPE

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ABSTRACT: City also known as living space where social life is maintained is also the most powerful expression of civilization. As stated in many literatures, space is a whole in the urban system or a multi-dimensional view of the environment which is formed by buildings, perceived by the citizens. City are related all urban events. With the emergence of the Covid 19 pandemic, curfews were imposed in Turkey. This situation caused areas with high human circulation in the urban area to be empty. In this study were emphasized situation and spatial characteristics of parks, squares, gathering and resting areas where social life continues, during the quarantine of Covid 19 pandemic.

Keywords: Visual quality, Pandemic, Social Areas, Urban Areas

O 31. THE ANALYSIS OF THE CONSERVATION PROCESS AND THE USE OF THE GEDIZ DELTA FROM ECOLOGICAL AND ECONOMIC ASPECTS

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ABSTRACT: The Gediz River, which is approximately 401 km long, forms the Gediz Delta with an area of approximately 400 km^2 in the region where it flows into the Gulf of Izmir. Gediz Delta is one of Turkey's largest wetland ecosystems. It is also protected by the Ramsar Convention. Gediz Delta, which has both national and international value, is a major water resource and an environment with high biodiversity. In addition, it is a region where agricultural and industrial activities are carried out. This study aims to discuss the biological functions and economic importance of the Gediz Delta and to mention the preservation process and its current use.

Keywords: The Gediz River, Gediz Delta, biological function, economic importance, use of Gediz Delta, Izmir

O 32. THE DETERMINATION OF ALOE VERA PLANT CULTIVATED IN ARID AREAS AND ITS APPLICATION IN LANDSCAPE ARCHITECTURE

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ABSTRACT: Natural resources have been led to be disappeared gradually from the surface of the earth by time, besides, the increase of drought caused by warming of the ground has also happened. The applications used in landscape architecture have some problems such as gradual decrease in the number of natural water reserves, insufficient water in agricultural fields. In this case, since there has not been much solutions found for applying against desertification issues, the need for the application of Landscape Architecture methods such as designing of new irrigation schemes, consideration of some soil measurements and studying of plants grown in arid areas especially Aloe Vera, as the most important part, are very essential methods which have been taken to account. In this study, Aloe, which is a very valuable aromatic plant as well as a useful plant in landscape architecture, has been considered and 56 species of this plant cultivated in Izmir city of Turkey has been evaluated in the point of landscape architecture.

Keywords: Aloe, Arid Landscape, Landscape Architecture, Natural Resources

O 33. WINTER GARDENS

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ABSTRACT: The term of winter garden winter gardens has started to emerge with the increase in construction and the gradual decrease in our ability to touch nature. Winter gardens are an important opportunity to reduce the stress and fatigue brought about by intense living conditions. It will be easier for us to increase morale and motivation in our lives with winter gardens. Within the scope of this study, information will be given about the meaning, importance, design criteria, styles of winter gardens, and place selection in winter gardens. In addition, information about plants that can be used in winter gardens will be given and sample winter garden visuals will be included.

Keywords: Landscape, Winter plants, Greenhouse

O 34. THE PLANT SPECIES ALTERNATIVE TO GRASS IN GREEN AREA

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ABSTRACT: Especially in the current period, various problems such as drought, deterioration of ecological balance, climate crisis are experienced. For this reason, we need to contribute to a more livable world. We should consider important points within the scope of landscaping works; The most important of these is the economical use of water. For this, it is necessary to use less water and to consume the water economically. Grasses, which are widely used in landscape architecture studies, are plants that need frequent watering. Within the scope of this study, alternative plants were handled instead of grass plants, which are frequently used in landscaping studies but have a high water consumption. Information has been given about alternative plants, and their various features and areas of use, which consume much less water, can be produced easily and quickly, spread quickly, and require much less cost.

Keywords: Landscape plants, grass, environment and green area

O 35. THE OLD TREES OF LANDSCAPE ARCHITECTURE

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ABSTRACT: Although humanity has destroyed the world faster than Mother Nature could recover. Fortunately, there are still natural wonders in this world that have survived for thousands of years. These are known as memorial trees. Monumental trees are among our indisputable riches that connect the past to the future due to the long life. In the world, it has many natural resources that are highly protected or need to be protected with both cultural and scientific values. In these, monumental trees are among the least interesting. Monumental trees, the oldest and silent historians living in nature, help us gain information about many natural events from the past. The old trees are also possible to associate with cultural events. In this study, information was given about the general characteristics of the plants, whether they are alive or not by conducting a literature research on the oldest trees.

Keywords: Live elements, Sekoya, Memorial tree

O 36. THE FLOOD CONTROL WITH OUTDOOR PLANTS IN LANDSCAPE RENOVATION

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ABSTRACT: Flooding could occur almost anywhere in the world, including the driest (desert) and most humid (tropical) areas. Floods are defined in many different ways and a great majority of floods actually occur as a result of events that occur within the self-protection mechanism of nature. As long as the flood does not harm the living and non-living environment, it is accepted as a normal "hydrometeological" event. Landscape restoration are also applied in order to respond to problematic areas such as floods. Necessary studies are carried out by considering the principles determined as the basis for all landscapes that have been intervened in the landscape restoration process. Planting is also important in flood control studies. The root structure of the plants, the water requirement of the plant, the attachment of the plant to the soil and survival status is important when flood occurs. In this study information was given about plants which have an important place in flood control.

Keywords: Landscape repair, Hydrological Planting, Disaster, Outdoor Plants

O 37. STUDY OF DIFFERENT BUILDING RETROFITTING TECHNOLOGIES ON ENERGY SAVINGS

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ABSTRACT: Retrofitting building envelope and heating ventilation and air conditioning plants, is crucial to reduce energy consumption. This research work deals with a building where an underfloor heating system, water radiators, and natural ventilation are the main systems used to maintain comfort condition throughout the majority of the building areas. This work involved developing a 3D model relating to building architecture, structure, occupancy & heating ventilation and air conditioning (HVAC) plants operation. Different energy retrofit technologies such as building envelope, lighting, heating, cooling and ventilation, as well as the use of solar energy were analysed. The objective of this research work was to develop a methodology that start by comparing various energy retrofit technologies and then continues to identify the most suitable in terms of energy savings and cost of investment. Result of the analysis on selected best retrofit technology shows that a reduce cost of investment in 15% was obtained compare to other technologies. Furthermore, electricity consumption savings and heat released can vary between 20 and 30% on monthly basis.

Keywords: Energy Efficiency, Building Retrofitting, Building Energy Simulation, Cost of Investment

O 38. DOES FOOD PREFERENCE AFFECT MOVEMENT: *TARAXACUM OFFICINALE* CONSUMPTION IN *DROSOPHILA* MODELS?

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ABSTRACT: *Taraxacum officinale* Weber (dandelion) can grow in urban environments on metal-polluted sediments deposited in the gutters. We hypothesized that food choice affects motor actions in climbing *Drosophila* in order to understand its adaptation to polluted environments. Polluted environments alter food choice, climbing and locomotion in response to bitter compounds in the diet. In our study, commercial dry plants at different ways (powder-0.025 to 1 g/L and brew- 100 to 200 microliter/ml) were added to insect diet. It was found that flies prefer food prepared with powder groups more than the control. While the first group (0.025 g/L of powder) was increased mobility, there was no statistically significant difference in climbing behavior between the groups except the first group.

Keywords: Bioaccumulator plant, Dandelion, Drosophila, Climbing ability, Two-way choice.

O 39. AIR POLLUTION DATA ANALYSIS OVER VAN CITY

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ABSTRACT: Air pollution exhibits a very complex and non-linear behaviour as a result of positive and negative changes in time and space, depending on the meteorology and topographic structure, in the transportation of the emissions released into the receiving environment as a result of the activity of air pollution sources. The aim of the study is to monitor the behaviour of air pollutants over VAN in 2019 through statistical analysis of data, to contribute to increasing air quality. PM_{10} and SO_2 parameters have been observed to have the highest average hourly value of 72.5-25.1 µg / m³, and the lowest value (24.8 µg / m³ at 22:00 hours,11.4 µg / m³ at 16:00 hours) respectively. It can be seen 64% of the measured PM_{10} data were observed in the range of 0.1-40.7 µg / m³. 80% of the same data is less than 56.4 µg / m³ and 91% of the data has the highest density observed in the range 1.1-82.1 µg / m³. while 77% of the measured SO_2 data was observed in the range of 1.5-22.7 µg / m³. 80% of the same data is less than 25.1 µg / m³ and 90% of the data has the highest density in the range of -4.7-37.8 µg / m³.The results also showed Wind plays an effective role in the horizontal transport of pollutants in the atmosphere. If the wind is calm, the polluted air stays where it is, and the precipitation help collapse Pollutants in the atmosphere, Because of this feature, precipitation is described as the cleaner of the atmosphere.

Keywords: Air pollution, Van, meteorology

O 40. RESEARCH OF THE EFFECTS OF DAMS AND HYDROELECTRIC POWER PLANTS ON ECOSYSTEM AND TOURISM ACTIVITIES

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ABSTRACT: In Turkey, dams are built for energy production outside to drinking water and irrigation needs. Numerous river-type (dam-free) hydroelectric power plants (HPP) are built on every stream in Anatolia. However, these power plants cause negative environmental impacts on a regional and global scale. These environmental impacts can be listed as the extinction of species and natural habitats, the melting of the deltas, the decline or depletion of groundwater, the drying up natural lakes, the affection of the physical and biological environment, economic inefficiency, and deteriorating socio-economic structure. Due to HPP underwater ancient cities have been increasing recently. Because of when compared to thermal and nuclear power plants, cause less damage to the environment and produce electricity at low cost, HPPs are more preferred. However, disappeared cultural heritage and biodiversity can destroy the benefits of project. In this study was shown the importance of the HPPs negatives effects on ecosystem and tourism. Also was emphasied location selection for HPP should be evaluated with parameters such as negative environmental impacts that may source from the dam, protection the country's resources and the socio-economic structure. In addition, alternative energy resources were also proposed evaluating the existing natural resources of the regions.

Keywords: HPP, dam, Biodiversity, Underwater City

O 41. WATER BUDGET IN TURKEY UNDER THE IMPACTS OF CLIMATE CHANGE

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ABSTRACT: Since the industrial revolution (the mid-19th century), the intensive increase in greenhouse gases released and accumulated into the atmosphere, as a result of anthrophonic and natural activities, have caused global warming, and the world have faced with the challenges of climate change that has political, social, cultural and economic impacts and that is expected to be more intense in the future. Weather events with the expected increase in temperature, evaporation, and changes in rainfall patterns have raised the question of "Are we running out of water?". It is observed that the potential water budget in Turkey was between 350-550 billion m^3 in the period of 2000 – 2019. According to the intermediate (RCP4.5) and high emission (RCP8.5) scenarios, it is expected that there will be an increase in the average temperature and changes in the amount of rainfall for the period of 2016-2099. From the high emission scenario, it is expected that Turkey's annual water budget will be more than 300 billion m^3 at the end of the 21st century. In this study, protective and sustainable measures, which will ensure that the potential water budget in Turkey is sufficient at the end of the century against the threat of drought that may occur with the expectation of increased temperature and changes in rainfall, have been evaluated.

Keywords: Climate Change, Climate Projections, Water Budget

O 42. QUALITY EVALUATION OF TECHNICAL REVIEWS OF CONSTRUCTION PROJECTS DESIGN AND CONSTRUCTION MATERIALS IN ALBANIA

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ABSTRACT: The aim of this research was the analysis of the institutions concerned in policy making and legality implementation, related to the safety of construction works, with the aim to ensure the community, the possibility of utilization of guaranteed civil engineering structures and high-quality construction materials. The main institution which guarantees the quality of the construction projects design and the quality of construction materials used in Albania territory, is the Albanian Institute of Construction. The Ministry of Infrastructure and Energy has failed to complete the legal framework, where quality of construction materials and construction projects design issues, should be entrusted to a competent institution, where its activity, in this case the Albanian Institute of Construction, has to be guaranteed by law. The lack of qualified staff, the recruitment employees without the necessary experience, as well as the lack of a non-accredited laboratory in ALIC, has led to the provision of low-quality technical reviews and lack of quality control of construction materials.

Keywords: Technical review, Construction Project, Design, Materials

O 43. THE PARAMETERS AFFECTING FORCED CONVECTIVE MASS TRANSFER OF LIQUID BENZENE AND TOLUENE

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ABSTRACT: Benzene and toluene are two of the important chemicals which have adverse effects on environment and human health. These chemicals may be used in dyes, cleaning products, and glues etc. They are in the class of volatile organics and they naturally evaporate easily at room temperature. These chemicals may be also evaporated with the help forced convection flow. This prosses is called as forced convective mass transfer and important indicator of volatile organic pollutants in ambient air. Forced like an air flow may increase the concentration of ambient volatile organic pollution originating from home appliances and cleaning products. In this study, forced convective mass transfer of liquid benzene and toluene was evaluated accordingly the parameters such as temperature, mixing state of chemicals, air flowrate and diameter of liquid container. The experiments were conducted in laboratory environment and the concentrations of evaporation gases were analysed with the gas chromatography with a flame ionization detector (GC-FID). Results of the study indicate that the most important parameter affecting the amount of gas phase concentration has been determined as the air flowrate applied on liquid surface. Furthermore, the diameter of liquid container and the ambient temperature have been found as significant parameters affecting the convective mass transfer of liquid benzene and toluene.

Keywords: Forced convective mass transfer, benzene, toluene, air flowrate, temperature

O 44. A NEW MODEL FOR THE UTILIZATION OF PARKING SYSTEMS IN ALBANIA

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ABSTRACT: Car parking problem has been always a major contributor in congestion of traffic and still remains a major problem, due to the increasing of vehicle sizes in the most loaded segments, confining parking spaces in urban cities. The rapid growth in the number of vehicles worldwide is raising the problem of the lack of parking space. As the global population continues to urbanize, without a well-planned, convenience-driven retreat from the car, these problems will worsen in many countries. The current unmanaged car parks and transportation facilities make it difficult to accommodate the increasing number of vehicles in a proper, convenient manner so it becomes indispensable having an efficient and smart parking system. Smart parking management systems are capable of providing extreme level of convenience to the drivers. In this paper, it is proposed a web application system, named "Park Easy", which is based on the usage of smart phones, sensors monitoring techniques with a camera, used as a sensor to take photos and to show the occupancy of cars parks. By implementing this system, the utilization of parking spaces will increase. It allocates available parking space to a given driver to park their vehicle, regenerate the availability of the parking space. Smart parking "Park Easy", will also enable most important techniques to provide all the possible shortage route for parking from any area of the city mainly, helping to envisage accurately and sense spot/vehicle occupancy in real-time.

Keywords: Smart Parking System, Application, Sensing Camera, Vehicle, Driver

O 45. ASSESSMENT OF TRANSPORTATION-ORIGINATING AIR POLLUTANTS WITH GIS

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ABSTRACT: The key elements considered for assessment of the naturalness of the lakes and rivers relate to the degree of intactness of the natural elements, patterns, processes, and extent of any physical land use changes or presence of different constructions. The natural character is essentially a measure of the naturalness or modifications of the natural elements, patterns and processes that comprise a water body. The current contribution is based on a process to assess the level of natural character that involves an understanding of the current systems and attributes that contribute to Lake Dojran ecosystem including abiotic, biotic and other factors. This assessment considered imputes data, such as river hydrology and morphology, aquatic and terrestrial ecology, water quality and landscape architecture. This approach is based on field visit carried out in end of March 2021 and further on a desktop review of relevant available data. The second component of this study includes the visual aspect of amenity as recreational values of the Lake Dojran in its full services. The effect of dramatic water level change/decrease (based on historical data of the period 1985-2000) on visual amenity values was correlated to offered recreation values. The survey analyses on the North Macedonian side of the lake revealed that <25% of the lake margins remained at the natural level, while the pressure from different sectors of human presence is steadily increasing.

Keywords: Air pollution, Heavy metal, Noise pollution , Soil pollution, Transportation

O 46. EVALUATION OF THE GOREME NATURAL PARK IN TURKEY THE FRAMEWORK OF ECOLOGICAL PLANNING

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ABSTRACT: Göreme National Park is an detrited plateau located in the formerly active volcanic region of the Central Anatolian Plateau, as part of the Cappadocia region. The geomorphology of a volcanic tuff landscape sculpted with erosion, mountain ridges, valleys and "fairy chimneys" is a rare geographical formation in the world. As a protected World Heritage site, Göreme National Park is now the center of attraction with intense touristic visits, rapid urbanization and urban transformations, facing ecological stress. This article aims to evaluate the relationship between natural ecological values and anthropocentric effect-intensive development projects for the future use of Göreme National Park, which hosts different uses in the historical process and reflects the balance between human and nature. In this context, the current situation of Göreme National Park will be analyzed in the article, and an evaluation regarding ecological planning will be made in order to protect the ecological structure in line with the problems and potentials and existing features.

Keywords: Göreme National Park, ecological planning, natural cnservation, land use

O 47. COMPOST PRODUCTION FROM CHICKEN MANURE AND ENRICHED WITH DIFFERENT MATERIALS OBTAINED FROM AGRICULTURAL WASTES FOR THE IMPROVEMENT OF DEGENERATED AGRICULTURAL LANDS

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ABSTRACT: The most important problem of agricultural lands in recent years is the increasing sensitivity to erosion. In agricultural production techniques; Applications that improve soil quality, provide soil with organic matter and increase soil aggregate stability should be supported. The movement and balance of water, air and plant nutrients in the soil should be sustainable. The main reason for the reduction of soil organic matter in agricultural ecosystems is the release of carbon dioxide into the atmosphere through carbon oxidation. When the carbon lost from the soil cannot be replaced, erosion increases even more. The addition of organic matter increases the aggregation in the soil and increases the resistance of the soil against water and wind erosion, increases the soil quality and increases the plant yield. In Konya Closed Basin (KCB), it is known that the stubble of corn, sunflower wastes from agricultural wastes are burned after harvesting in areas where intensive agriculture is carried out. The organic carbon amount of these agricultural wastes must be recycled to the soil by composting. In addition, it should be aimed to reduce the loss of nitrogen in its content by enriching chicken manure with different materials with composting techniques and to ensure its recycling to the soil and to improve and increase the soil quality. Within the scope of the TAGEM project named "Determining the Effects of Chicken Manure Enriched with Different Materials and Compost Obtained from Agricultural Wastes on Soil Quality and Growth of Corn (Zea mays L.)", organic materials obtained from chicken manure and agricultural wastes, Composting operations were carried out in an open heap environment. Providing carbon and nitrogen mineralization in soils by composting chicken manure with agricultural wastes with different materials such as leonardite, clinoptilolite, biochar in problematic, marginal semi-arid areas that are devoid of organic matter, and which have suffered wind erosion in the sustainable land management (SAY) planning in the basin. It is aimed to increase the organic matter content, increase the microorganism activity and aggregate stability, increase plant growth and productivity, and ultimately reduce erosion. The composting process of the project has been evaluated in this study.

Keywords: Chicken manure, Agricultural waste, Organic matter, Compost, Aggregate, Erosion, Karapınar

O 48. EVALUATION OF GEOLOGICAL PROPERTIES OF SOLID WASTE LANDFILL

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ABSTRACT: It is known that consumption and wastes increase in parallel with the increasing population, rapid urbanization, and industrialization. For this reason, the determination of solid waste landfills has become very significant. The geological characteristics of the region, which are included in the location criteria, have a significant impact. In this study, some of the geological and geotechnical parameters in Konya and the results from other studies were compared. A clay unit with low plasticity was observed and its properties were evaluated after the drilling results.

Keywords: Konya, Solid Waste, landfill Area, Settlement, Geology

O 49. EXAMINING RELATIVE VARIABLE IMPORTANCE (RIV) AND ESTIMATION THE STRENGTH OF INTERACTION EFFECTS (SIE) OF PARTICULATE MATTER (PM10) CONCENTRATION AT CITY OF KONYA, TURKEY

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ABSTRACT: One of the most important climatic elements in a certain area is snow. The amount and depth of this paper investigated the use of stochastic boosted regression trees (BRTs) to draw an inference about particulate matter (PM_{10}) concentrations at Konya city in Turkey. A total one calendar year 2020 data of 8784 hourly PM_{10} concentrations, gases (Nitrogen Dioxide (NO_2), Sulphur Dioxide (SO_2) and Carbon Monoxide (CO)) data were gathered from the Konya City air quality monitoring station and the meteorological data wind speed (ws), wind directions (wd), temperature (temp), pressure and relative humidity (rh)) data were captured from Konya Airport meteorological station. Data were analysed statistically by using a comprehensive package, R Software and its packages to understand the variability and trends. An artificial intelligent approach named the Stochastic Boosted Regression Trees technique were used as a response variable and time systems and meteorological parameters were analysed in advance stage. The BRT model development process with algorithm development were done to achieved the lowest root mean squared error (RMSE) with high coefficient of determinant (R^2) value for the linear relationship between the number of samples and number of trees (*nt)* of 4485 for OOB, 9999 for CV and 8103 for test were found.**The performance** of the boosting model was assessed, by comparing the fraction of predictions within two factor (FAC2), coefficient of determination (R^2) and the index of agreement (IOA) of the model. It was found that the FAC2 was 0.82, the R^2 values were above 0.50 (R = 0.74), and Index of Agreements (IOA) was 0.70 which fall range are within an acceptable for model performance. It was found that **Relative Variable Importance (RIV)** that influenced PM_{10} was SO_2 (27 %), O_3 (23.5 %), NO_2 (20.6 %) and temperature (10.36). This can be link to the location of these chosen station is co-inside closed to an arterial road that link these cities to the other, whereby a lot of motor vehicles the source emission strength due to city development in Konya City. The Estimation of the strength of interaction effects (SIE H-Index) can assess the relative strength of interactions variables were found up to 0.27 for CO and O_3 interactions, followed by 0.23 for Temperature and Humidity, and 0.124 for NO_2 and SO_2. Results showed that the model developed was within the acceptable range and could be used to understand particles formation and identify important parameters that influence for estimating particle concentrations for the year 2020 in Konya city and this can be applied to other datasets.

Keywords: Boosted regression trees, Air pollution, Relative Variable Importance (RIV), strength of interaction effects (SIE)

O 50. CHEMICAL CHARACTERISATION OF OREGANO VULGARE ESSENTIAL OIL FROM SOUTH-EAST ALBANIA

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ABSTRACT: In this paper were present chromatographic data of *Oregano vulgare* essential oil from Kolonja area located in South-East Albania. *Oregano vulgare* is a flowering plant of mint family (Lamiaceae). It is native to the Mediterranean region. *Oregano vulgare* can found almost in all Albania areas. Since ancient times it has been used in culinary and traditional medicine. Aeral parts of *Oregano vulgare* were sampled in the end of the June for a five years period (2015-2019) in Kolonja area. The air dried leaves samples were subjected to European Pharmacopoeia apparatus (Clevenger type) for 4 hours to obtain *Oregano vulgare* essential oil. The leaves contains 1.43 - 1.74% essential oil. The chemical composition of the essential oils was analyzed using GC/FID technique. *Oregano vulgare* essential oil samples were injected in a Varian 450 GC. VF-1ms capillary column (30 m x 0.33 mm x 0.25 um) were used for separation of terpene compounds.
Monoterpenes were in higher percentage in all studied *Oregano vulgare* essential oil samples between 87.5% to 89.4%. Aromatic monoterpenes (p-Cymene, Thymol and Carvacrol) were found as the main constituents (74.4 - 81.2%) because of fenolic type for these essential oil. Profile of *Oregano vulgare* was the same for all years despite the differences in atmospheric conditions and harvesting time. Profile and leveles of *Oregano vulgare* samples from Kolonja, South-East Albania was similar with other reported studies from Balkan and Mediterrean area. plants.

Keywords: Oregano vulgare L., Essential oils, Terpene, Thymol, Carvacrol, Gas chromatography

O 51. A COMPARISON OF PESTICIDE AND PCB LEVELS BETWEEN SOIL AND FRUIT/VEGETABLE SAMPLES FROM MYZEQEJA AREA, ALBANIA

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ABSTRACT: In this paper are presented concentrations of organochlorinated pesticides and polychlorinated biphenyls (PCB) in soil, fruit and vegetable samples from Myzeqeja area. Previous aplication of pesticides for agricultural purposes or/and atmospheric deposition of PCBs and other volatile/semivolatile compounds, irrigation waters, agromechanics and different acidents are the main ways of organic pollutants presence in soil samples. Myzeqeja field is the main agricultural area in Albania. Soil and plant (fruit/vegetable) samples (in the same area) were selected in 15 different stations of Myzeqeja field. Samples were taken in May 2020. Ultrasonic extraction used for extracting organochlorinated pesticides, their residues and PCBs from soil and fruit/vegetable samples. Clean-up procedure was performed using firstly silicagel with sulfuric acid and a second clean-up procedure in an "open" florisil column. Qualitative and quantitative analysis was realized in Varian 450 gas chromatograph equipped with ECD detector. For simultaneous separation of organochlorinated pesticides and PCB markers was used Rtx-5 capillary column (30m x 0.32mm x 0.25μm). In all studied samples were found organochlorinated pollutants. These facts reflect the presence of these pollutants because their previous use, bioaccumulation processes, slope, soil geology, fruit/vegetable type, irrigation water used, atmospheric deposition, etc. The main origin of organochlorine pesticides could be as result of their previous uses for agricultural purposes because the higher concentrations for their metabolites. Profile PCB marker were as following: PCB 28 > PCB 138 > PCB 153. This fact confirms atmospheric origin of these compounds in Myzeqeja area.

Keywords: Organoclorined pesticides, PCB, Soil samples, Fruit and Vegetable samples, Gas chromatography

O 52. SOME PHARMACEUTICAL ACTIVE COMPOUNDS IN SURFACE WATERS OF TIRANA CITY

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ABSTRACT: Personal care products and Pharmaceutical Active Compounds (PhACs) used for health treatments are commonly reported as pollutants in urban waters and especially in hospital waste waters. PhACs are present not only primary substances used as drugs for the treatment of various diseases but also by the secondary substances which are the products of the metabolism of these drugs. These substances are found in surface waters, urban waters and hospital waters due to their excretion by patients who use them both in home use and in hospital treatments. A large number of these substances have harmful effects on the environment and on living organisms. The determination of antibiotics (amoxicillin, ciproflax and tetracycline) and anti-inflammatory drugs (diclofenac, ibuprofen and nimesulide) in water samples of Lana and Tirana rivers was performed by HPLC/DAD technique. After the validations of analytical method, were taken water samples on 7 stations of Lana River and 5 stations of Tirana River. Samples were taken in February 2021. Drugs isolation is achieved by using the SPE extraction technique using C18 cartriges. Qualitative and quantitative determination is performed using Agilent model 1260 HPLC equipped with quaternary pump and DAD detector. S8 Zorbax-C18 column (15 m x 4 mm x 0.5 um) was used for their separation. Pharmaceutical compounds (antibiotics and anti-inflammatory drugs) taken in the study were detected in almost in all water samples of Lana and Tirana rivers. Their presence was result of direct discharges into this rivers from both urban and hospital wastewaters. The highest level was found for amoxicillin (antibiotic) and ibuprofen (anti-inflammatory). This may be related to their various uses especially during this Covid-19 pandemic period.

Keywords: Pharmaceutical active compounds, antibiotics, anti-inflammatories, HPLC/DAD.

O 53. RECYCLE ALUMINIUM INDUSTRY IN ALBANIA

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ABSTRACT: Aluminium is an element that has found wide usage due to its mechanical and physical characteristics, such as cars (motor parts, discs, etc.), food packaging, pharmaceuticals, profiles – windows frame, electronics, including the waste from said aluminium part manufacturing. All of these together with other waste aluminium from consumption or manufacturing are separated into post-consumer scrap, also known as waste from aluminium usage, such as cans, cars, profiling, which must be packed and separated before recycling, and pre-consumer scrap, which is generated during the manufacturing process. This kind of scrap can be reinstated into the process to be remelted. The demand for aluminium leads us to recycle this waste and turn them into raw materials for aluminium production. Aluminium scrap is an infinitely recyclable, harmless material and a considerably valuable raw material. The raw material used for secondary aluminium production is scraps, slugs and waste from this industry. The companies that recycle aluminium are mainly small-/medium-sized enterprises; it can be assumed that the statistics for recycling are incomplete.

Keywords: Waste, Reuse/Recycle, Secondary Aluminium, Scrap.

O 54. EFFECT OF ACID RAIN ON BUILDINGS AND BUILDING MATERIALS

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ABSTRACT: Increasing industrialization and constant change, improving living conditions, bringing air pollution in every aspect of human life and has been negatively affected. It affects human health, all other living things and man-made objects. In this study, our aim is to focus on the structures of air pollution. In particular, the effects of acid rain on buildings were investigated. Even if the effects of acid rain are not observed in the short term, it has been determined that there are serious damages, discoloration and deformations on historical structures. Acid rains cause deterioration in structures by falling on the structures in the form of sulphuric acid and nitric acid drops, which are formed as a result of the reaction of fossil fuel wastes increasing with industrialization in the water cycle. Sulphur-oxide and nitrogen-oxide emissions cause acidification in the atmosphere. In order to reduce acid rain, forests and green areas should be protected and increased, unnecessary vehicle use in transportation should be minimized, the use of natural gas for heating should be increased, and the sulphur content in fuels should be reduced.

Keywords: Acid Rain, Acid Rain in Structural Materials, Structural Material Deformation, Acid Rain Effect

P 1. THE INCIDENCE OF ACUTE LYMPHOCYTIC LEUKEMIA IN ALBANIA

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ABSTRACT: Acute lymphocytic leukemia (ALL) is a blood cancer that affects both children and adults, peaking its incidence at a very young age, usually between 2 and 5 years old. The causes of ALL are considered multifactorial, including genetic, environmental, and chance. It is an aggressive disease that leads to the formation of immature lymphocytic cells at an increased rate and short time. Approximately 90% of children affected by ALL have made a complete remission from the disease. Our study aims to give a comprehensive analysis of ALL patients in Albania. Data was obtained from the registry of University Hospital "Nënë Tereza", Tirana, Albania. We analysed factors such as age and gender and place of habitation to consider several variables that lead to the progression of the disease. Data showed that these factors have a statistical relevance for the development of the leukemia with $p \leq 0.05$. Male to female ratio was 1.52:1. Children from new-borns to teenagers comprised 67% of the study group which also shows the high incidence rate of ALL in young people. Incidence peaked at ages 2-5 and 6-10 where males to female ratio was 1.7:1. Overall the incidence in Albania is similar to Europe with an inclination towards males and children between the ages of 2-5 years.

Keywords: Albania, Acute lymphocytic leukemia, Males, Females, statistics.

P 2. THE IMPACT OF COVID 19 ON CRYPTO CURRENCY FOCUSED IN EASTERN EUROPIAN SOCIETIES

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ABSTRACT: The impacts of Covid-19 have been bot negative and positive. While a significant portion of the economy has been affected negatively, the financial market experienced a major boost following increased digital currency transactions (Iqbal et al. 2021). The digital currency platform has registered significant gains during the Covid-19 pandemic has governments across the world formulated and implemented policies to discourage transactions in Fiat currency, which is considered a 'super spreader' (Assoumou-Ella, 2020; Chronopoulos et al. 2020). Governments in developing countries that are highly likely to be overwhelmed by the virus have taken key initiatives to encourage use of digital currency such as directing financial institutions to waive their transaction charges during the pandemic, a move that has encouraged more people to adopt use of digital currency (Kakushadze & Liew, 2020). The Western Balkan region has particularly experienced massive transformation of its financial markets, with digital currencies gaining more in roads in the industry layout. Jusufi and Bellaqa (2019) note that before the pandemic, many organizations in Balkan lacked the necessary infrastructure to support the digital currency framework. Broz et al (2020) found that Western Balkan countries still lagged behind EU's digital threshold in various aspects of the economy. With the changes that have taken effect, Western Balkan countries have put in place the necessary resources required to mitigate the spread of Covid-19 through developing the digital currency platform. Stojkovski (2020) notes that while cash may still be the most common method of payment, government financial policies adopted during the Covid-19 pandemic are fueling the culture of crypto currency. Golemi and Muco (2020) point out that using digital currency to complement other payment methods can fasten growth in the Western Balkan economies. These findings support the findings of numerous other studies whose findings pointed to adoption of digital currency being a major economic performance indicator (Gonzalez et al. 2020; Halaburda, 2016; Van Hoang & Syed, 2021). Thus, this paper will investigate the effects of Covid-19 on digital currencies in the last one year that the pandemic has been active, focusing on six Western Balkan countries; Serbia, Montenegro, Kosovo, Bosnia, Albania, and Macedonia. The methodology includes primary data collected from financial institutions in the region. The study hypothesizes that COVID- 19 has a positive effect on Western Balkan societies' digital currencies.

Keywords: Cryptocurrency, Eastern Europe, Economy

P 3. COMPARISON OF THE AVERAGE DIFFERENCES OF POSITIVE FREQUENCIES WITH Q FEVER AMONG FARM ANIMALS BETWEEN REGIONS OF THE WESTERN PART OF NORTH MACEDONIA WITH THE STATISTICAL METHOD ANOVA

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ABSTRACT: Q fever is a zoonotic disease caused by the ubiquitous pathogen *Coxiella burnetii*, an obligate intracellular gram-negative bacterium. Farm animals and pets are the main reservoirs of infection, and transmission to human beings is mainly accomplished through inhalation of contaminated aerosols. The objective of this study was to investigate the comparison of the average differences of positive frequencies with Q fever in farm animals in five regions of western North Macedonia, with the statistical method of Anova and the homogeneity of the regions. From 1120 tested serums, 178 resulted positive, with deviation of the average from one region to another. The Kicevo region had the highest overall average of 0.28 compared to the Gostivar region average of 0.08. It was concluded that the difference between the groups is statistically significant for the level of reliability 0.01. Homogeneity with the Tukey method showed that the sample frequencies in the regions of Dibra and Kicevo were 0.26 and 0.28 above the general average, while in the regions of Gostivar, Tetovo and Struga were 0.15 below the general average and it was concluded that there is a connection between the regions in the spread of Q fever infection. The definite diagnosis of Q fever is made based on a significant increase in serum antibody titers. The serums were conserved in -30 °C and as a serological test ELISA from ID vet Monpelie France was used, which was carried out based on its relevant protocol using purified antigen of *C. burnetii*.

Keywords: Q-fever, Zoonosis, Anova, Pathogen, Antibody.

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