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КАФЕДРА ІНОЗЕМНИХ МОВ
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ ЦЕНТР

**МАТЕРІАЛИ XI ВСЕУКРАЇНСЬКОЇ
НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ
СТУДЕНТІВ АСПІРАНТІВ ТА ВИКЛАДАЧІВ
ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО
ЦЕНТРУ КАФЕДРИ ІНОЗЕМНИХ МОВ**

“TO MAKE THE WORLD SMARTER AND SAFER”

(Суми, 23 березня 2017 року)

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
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**MATERIALS OF THE ELEVENTH
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SMART CITY

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A smart city is defined as a city that engages its citizens and connects its infrastructure electronically. The smart city concept has been introduced to solve a number of problems that arise in the management of any big city, especially megalopolises. Special attention is paid to the development of business and city through the construction of a favorable business infrastructure. The smart-city researchers have identified six characteristics that are essential to explain the concept. *Economy*. It includes dynamic business processes, labor market flexibility, etc. *Smart people*. Human capital recognizes the rights of all communities who are open minded and cosmopolitan. *Intelligent control*. Intelligent government put objectives of a strategic nature, involves rational decision-making processes, creating strategic plans. *Smart safe transport and information infrastructure*. This allows cities and districts within it, to be accessible for the outside individuals. *Environment*. It involves wise use of natural resources and the orientation on sustainable development, as well as reducing environmental pollution. *Intelligent life in the city*. Intelligent life in the city means the presence of cultural, health, educational facilities centers, etc. Each characteristic determines an economic function. It significantly affects individuals and businesses as far as life quality improvement, and increases economic opportunities.

Technology is crucial for building a smart and secure city. The city management needs to empower the public by engaging them in the decision-making process. It should value their citizens' feedback by encouraging them to participate and contribute to solving problems. Moreover, local citizens must be fully aware of the community challenges and must take part in shaping the budget allocations, local taxes, etc.

Cities face many risks and challenges, such as poverty, unemployment, traffic jams, cyber-attacks, high crime rates, and slow processing of business transactions by bureaucratic city

systems. The smart city concept is closely connected with the improvement of the efficiency of individual buildings, residential areas, infrastructure facilities, recreation areas or entire cities. "Smart" approach to the planning of urban areas has a common problem with the "green" approach: reducing the load on the municipal network, energy efficiency, improving the connectivity space and increasing comfort for users.

Technological devices are an important part of the smart city concept. As a rule, they can be designed with special sensors. Sensors are small measuring devices that use electronics to detect certain sounds, odors, or levels of variation. There are two types of them: passive and active. Passive sensors do not have to take action, they just collect the data. They are mainly used for measuring weather conditions such as wind speed, level of ground-level ozone, or ultraviolet levels of the sun. Active devices, on the other hand, use electronics for data processing and taking appropriate action, e.g. traffic lights or parking sensors that use electronics for calculation the collected data and then take actions based on satisfaction of a certain threshold value. A network of physical devices or "things" that work in close cooperation through the collecting, exchanging and processing of data is known as the Internet of things (IoT). City can use it for remote monitoring these sensors via a wired or wireless network. IoT can be used for improvement of plan ability. The data will also allow city officials to focus on smart planning of infrastructure, e.g. in the areas where water leakage was the most.

So, smart city is based on the data analysis. Data collection provides understanding of citizens' needs. There should be more services and platforms in the cities to collect feedback from the citizens. People, processes, and technology are three pillars of smart city initiatives that can be utilized to alleviate such challenges. The implementation of this concept will enhance the life quality of citizens and create beneficial influence on development of urban infrastructure, will help to deal with many problems and risks, such as unemployment, poverty, traffic congestion, high crime rates, cyber-attacks and slow bureaucratic city systems for processing business transactions.