

**APPLICATION OF THE INTERNET OF THINGS TECHNOLOGY ON THE EXAMPLE OF A SMART HOME CONTROL SYSTEM**

*Tkachenko Yeva* – student, [eyva.tkachenko@gmail.com](mailto:eyva.tkachenko@gmail.com)

*Gudkova N.* – PhD in Philology, Associate Professor, [gudkova.nm@knuvd.com.ua](mailto:gudkova.nm@knuvd.com.ua)  
*Kyiv National University of Technologies and Design*

**The purpose of** the work is to analyze the operation of Internet of Things technology on the example of a smart house system.

Internet of Things (IoT) technology is used in various fields of life, including smart home systems. A smart home is a system that allows for the automation of various processes and controls devices in the home using the Internet and other technologies. The application of IoT technology in a smart home control system can be particularly useful for managing many devices in the home, as well as enhancing security and comfort.

The use of IoT technology in smart home control systems allows for the automation of device management in the home using voice commands, mobile applications, and other technologies. For example, smart home devices can automatically regulate the temperature in the home, lighting, TV, sound systems, and much more. This enables people to manage their home with greater precision and convenience, saving time and improving quality of life.

Another advantage of IoT technology in a smart home is an improvement in the safety of home living. Security systems connected to IoT can alert individuals of dangerous situations such as smoke in the building, water leaks, as well as break-ins through doors or windows. Additionally, access control systems can be connected to IoT, which allows for the automatic monitoring of access to areas of the home and ensures safety.

Another aspect of smart home automation that can be implemented using IoT technology is the automated upkeep of the home. For example, smart home devices can automatically turn off lights, close windows and doors, and control water flow. This can reduce energy consumption and save money on bills for electricity, gas, and water.

However, like any technology, IoT can come with significant risks. Data security and confidentiality are some of the main risks associated with IoT and smart homes. Therefore, it is recommended to take measures such as setting up passwords for devices, regularly updating their software, and other precautions to reduce the risk of cyberattacks.

## **Платформа: ІНФОРМАЦІЙНІ СИСТЕМИ. КОМП'ЮТЕРНІ СИСТЕМИ ТА МЕРЕЖІ. ТЕХНОЛОГІЇ INTERNET OF THINGS ТА SMART-СИСТЕМИ**

**Conclusions.** The use of IoT technology in smart home control systems can be very useful and beneficial for residents, providing them with a high level of comfort, security and the ability to automate and optimize a number of processes. However, the potential security and privacy threats posed by the use of the IoT should be considered and steps should be taken to minimize the risks. In general, the use of IoT technology on the example of a smart home shows the potential and prospects of such technology to improve people's lives in various areas.

### **R e f e r e n c e**

1. Role of IoT in Smart Home Concept. HelpWire Blog. URL: <https://www.helpwire.app/blog/iot-smart-home/> (date of access: 17.04.2023).
2. Інтернет - Інтернет речей та смарт технології. Google Sites: Sign-in. URL: <https://sites.google.com/view/bezpecnyj-internet/можливості-інтернету/інтернет-речей-та-смарт-технології> (дата звернення: 17.04.2023).
3. Що таке «розумний дім» і навіщо він потрібен? | Stylus. Інтернет-магазин STYLUS. URL: <https://stylus.ua/uk/articles/528.html> (дата звернення: 17.04.2023).