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Progress»**

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INCLUSIVE ENGINEERING IN THE RESTAURANT INDUSTRY

Kuzmin Oleh

Doctor of Engineering Sciences, Professor
Department of Technology of Restaurant and Ayurvedic Products
National University of Food Technologies, Ukraine

Chemakina Oktyabrina

PhD in Architecture, Associate Professor
Faculty of Architectural Structures and Airfields
National Aviation University, Ukraine

Kuzmin Anton

Master of Architecture and Urban Planning

Kuzmin Dmytro

Student of the Faculty of Information Technology
Taras Shevchenko National University of Kyiv, Ukraine

Introduction. In the restaurant industry, engineering solutions play a crucial role in ensuring a high level of comfort for both visitors and employees. Key aspects of implementing inclusive engineering in the restaurant business include maintaining comfortable microclimatic conditions, efficient use of energy resources, and ensuring accessibility for people with inclusive needs.

Inclusive engineering is a comprehensive approach to the design, construction, and operation of buildings, infrastructure, and technical systems aimed at providing equal opportunities and comfort for all users, particularly those with inclusive needs. For the restaurant industry, this involves creating a barrier-free environment to adapt work areas and service zones to meet the individual needs of people with specific requirements.

The purpose of this work is to develop elements of inclusive engineering for the restaurant industry, including the maintenance of enhanced optimal microclimatic conditions, energy efficiency, and accessibility for people with special needs.

Results and Discussion. For highly sensitive and vulnerable individuals, such as those with disabilities, the elderly, ill individuals, and small children, it is essential to create enhanced optimal microclimatic conditions within facilities [1]. These conditions depend on a combination of temperature, relative humidity, air movement speed, surrounding surface temperatures, and thermal radiation intensity [1, 2].

Ventilation systems replace indoor polluted air with cleaned external air [3, 4]. This approach helps maintain optimal air cleanliness and freshness for visitors in the service area, as well as for employees in the work area, and ensures the proper functioning of technological equipment.

Air conditioning systems provide not only air purification and heating but also cooling [3, 4]. This is particularly important during warm periods of the year when high temperatures can negatively affect employee productivity and visitor comfort, especially for those with inclusive needs. Air conditioning systems help maintain a stable indoor temperature, creating favorable conditions for both work and relaxation.

During colder periods, heating systems achieve thermal comfort by compensating for heat losses and maintaining necessary temperature parameters [3, 4]. Proper selection and effective use of heating systems are crucial not only for comfort but also for the energy efficiency of restaurant facilities. Effective heating solutions support both the comfort of individuals with inclusive needs and the proper functioning of technological processes in production areas.

The use of energy-efficient ventilation and air conditioning systems, along with high thermal insulation materials, reduces energy consumption and improves comfort for both people and technological processes.

Utilizing alternative energy sources such as generators, solar panels, and wind turbines ensures stable equipment operation and maintains comfort during power outages.

Ensuring accessibility in the restaurant industry is a critical aspect of inclusive engineering. According to [5, 6], it is necessary to provide accessible stairs, ramps, railings, and other accommodations for easy movement of individuals with disabilities. Floor materials should prevent slipping, and spaces should be equipped to ensure comfort for people with special needs.

For personal transportation of individuals with disabilities, designated parking spaces should be allocated based on the parking lot capacity. Additionally, in service areas, at least 5% of the seats should be adapted for wheelchair users [5].

Communication paths and aisles between tables must allow for convenient movement of individuals with limited mobility, including those using wheelchairs. Dining areas should be located on the ground floor (in the absence of passenger elevators) and adhere to space regulations. In self-service restaurants, it is recommended to allocate up to 10% of the seating for individuals with disabilities [5].

Information about the restaurant, including its type, class, service format, and accessibility for individuals with limited mobility, should be readily available and easily identifiable. Specific informational tools should be integrated into the main interior design concept to enhance convenience and comfort for all visitor categories.

Conclusion. Inclusive engineering is a crucial component of the successful operation of restaurant industry establishments, ensuring equal opportunities for all segments of the population. Adhering to recommendations for providing high levels of comfort and accessibility in these establishments helps create favorable conditions for both work and relaxation, enhancing employee productivity and visitor satisfaction. The use of modern technologies and energy-efficient solutions not only reduces energy costs but also improves overall comfort levels.

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