

## 5 ІНФОРМАЦІЙНІ ТА ЕКСПЕРТНІ СИСТЕМИ У ВИРІШЕННІ ПИТАНЬ БЕЗПЕКИ ЖИТТЄДІЯЛЬНОСТІ

### INFORMATION TECHNOLOGIES IN MANAGEMENT OF PROFESSIONAL SAFETY ІНФОРМАЦІЙНІ ТЕХНОЛОГІЇ У ВИРІШЕННІ ПИТАНЬ МЕНЕДЖМЕНТУ З ПРОФЕСІЙНОЇ БЕЗПЕКИ

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**Annotation.** The issues considered are the integration of IT technologies in the management of professional safety of employees and employees. An insufficient level of application of software at Ukraine in IT technologies is pervasive, which hinders the development of management in security matters. The possibilities of GIIM (USA) in providing education/training and certification in the field of managing IT technologies are shown.

**Key words:** information technology, management, occupational safety, health, GIIM

**Анотація.** Розглядаються питання інтеграції IT-технологій в управління професійною безпекою службовців. Недостатній рівень застосування програмного забезпечення в Україні в IT-технологіях широко поширений, що перешкоджає розвитку управління в питаннях безпеки. Показано можливості GIIM (США) щодо надання освіти / навчання та сертифікації у галузі управління IT-технологіями.

**Ключові слова:** інформаційні технології, управління, охорона праці, здоров'я, GIIM.

Information technology (IT) has gained a new impetus in the 21st century which has led to scientific and technological progress, where every company is becoming an IT organization. Emerging technologies (e.g. Big Data, Analytics, Artificial Intelligence, Blockchain, Robotics Process Automation) require changes in approaches to the organization of occupational safety and health management, technological safety, cyber-security, among others. The modern enterprise manager can no longer rely solely on their own abilities and experience. They must appropriately apply the latest technological developments with a solid understanding of business, management, leadership, and industry to be able to leverage these essential technologies. Companies regardless of size or industry must address the question of how to effectively and efficiently deploy these technologies.

At present, IT technologies in Ukraine have not yet been appropriately leveraged. The analysis of the software offered in the Internet resources is reduced to training programs, information databases that are built on CD disks and so on. Below is a list of what is currently available to PC users in the field of occupational safety and health in Ukraine.

Computer software company "Traffic light". GAI exam tickets (electronic version, CD). Elencom computer software. Computer program for automated solution of issues of certification of electrical installations of consumers "Energetik" (operation of electrical installations,

certification of electrical equipment, technical expertise): local version; remote access version. CD: Passport forms and electrical test reports CD: electrical equipment certification. Zlagoda computer software. Demo versions of all Zlagoda computer software. An electronic collection of occupational safety instructions (222 instructions on CD) by profession and type DNAOP electronic register and collection of regulations on labor protection (CD). (100 inst., Ukrainian and Russian languages) Computer program of training and assessment of knowledge on occupational safety with 18 courses on CD, according to the list of methodical manuals. Auto Examiner OSH. Computer program for introductory briefing on occupational safety. "Auto Instruction OSH" on CD. Computer-based knowledge testing program for high-risk jobs. 20 - course TAP auto examiner. Computer program for training and assessment of knowledge of electrical safety personnel - "Auto examiner of the OSH". Computer programs of NPP "Protek". Computer program for training and testing of knowledge. 32,000 questions for them: Software - database (one) from 43,00 to 529,00. Computer program for workers of labor protection services "Automated workplace" Labor protection "and others.

Well-known Internet resource offers Risk Matrix Calculations – Severity, Probability, and Risk Assessment (posted by admin on April 23, 2018). Safety Professionals use a risk matrix to assess the various risks of hazards (and incidents), often during a job hazard analysis. Understanding the components of a risk matrix will allow you and your organization to manage risk effectively and reduce workplace incidents.

The Canadian Center for Occupational Health and Safety also offers a wide selection of education and training programs on its website but it also comes down to information not professional assistance in calculating and analyzing.

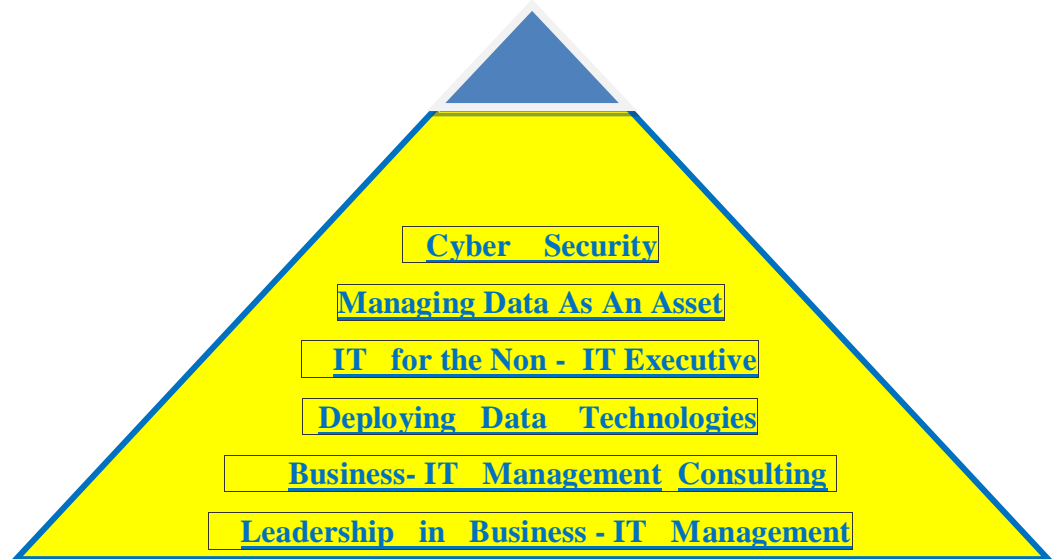
We can conclude after analyzing of the above materials that all of them relate only to the issues of training, knowledge testing and provision of information knowledge. There are no programs that focus on the management of emerging information technologies for both IT and non-IT professionals; urgently needed by businesses and occupational safety departments.

From the above, it follows that IT technologies have not yet found their wide application in addressing professional security issues, and this problem should be filled with new developments and programming technologies and management approaches aimed at solving the urgent problems facing the heads of departments and labor safety services at enterprises in different industries.

The well-known Global Institute for IT Management (GIIM, headquartered in USA) is engaged in IT management education and technical training for engineers and IT (and non-IT) managers. They can deliver their leading edge programs any way desired, including distance

learning. Programs are carried out in a language program adapted to the student and after completing the course he receives an international certificate.

Available 4-course it management certificate programs include levels (pic. 1)



Picture 1 – Available 4-course it management certificate programs

## ВИКОРИСТАННЯ СУЧАСНИХ ІНФОРМАЦІЙНИХ ТЕХНОЛОГІЙ В УПРАВЛІННІ БЕЗПЕКОЮ USE OF MODERN INFORMATION TECHNOLOGIES IN SAFETY MANAGEMENT

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**Анотація.** Розглядається проблема впровадження цифрових технологій у сфері безпеки шляхом застосування ймовірнісних методів моделювання небезпек, які відносяться до парадигми ризик-орієнтованого підходу. Як приклад, аналізується безпека у галузі харчових технологій випічки хліба.

**Ключові слова:** безпека, ризик, управління безпекою, небажана подія.

**Abstract.** The problem of the introduction of digital technologies to the field of safety through the application of probabilistic methods of hazard modeling, which are related to the paradigm of risk-oriented approach, is considered. As an example, the safety of bread baking technology is analyzed.

**Keywords:** safety, risk, safety management, dangerous event.

**Вступ.** Перехід на сучасні методи та засоби управління безпекою у нашій державі відбувається настільки повільно, що створюються проблеми та витрачаються великі кошти на ліквідацію наслідків надзвичайних ситуацій (НС).

**Актуальність.** Бажання приєднання до світової спільноти потребує відповідних дій у всіх сферах життєдіяльності, у сфері безпеки критично важливої інфраструктури (КВІ) тощо, але передусім потрібні зміни в освіті з безпеки.